FPA/N #: 2818896
Received Date: 2/3/2023
Completed Date: 2/3/2023
WDFW Concurrence Due Date: N/A
WDFW Concurrence Received:
Comments Due Date: 2/17/2023
Decision Due Date: 3/5/2023
FP Forester: NK30
WDFW Biologist: J Ingram
Shutdown Zone: 656/658

Forest Practices Application/Notification
Office Checklist Page 1
Northwest Region

FPA/N CLASSIFICATION: ☐ II ☐ III ☐ IVG ☒ IVS		☐ Biomass ☐ 20-Acre Exempt | EARR TC ☒ Yes ☐ No	
Landowner Name:	DNR	Project Name:	Brokedown Palace

WRIA: Nooksack #1 WAU: Porter Canyon
WRIA: WAU: Hutchinson Creek
WRIA: WAU:
Legal: 24,25,36-38-05E;18,19,20,30-38-06E County: Whatcom

Activity Type(s):					
Harvest:	69 ac	Crossing:	3 #	Rock Pit:	.75 ac
Spoils:	100 cy	Construction:	4665 ft	Abandonment:	965 ft

ALTERNATIVE PRESCRIPTIONS
☐ Alternate Plan ☐ Fixed-Width ☐ Overstocked
☐ 10-Year Management Plan ☐ Statement of Intent
☐ Columbia River Gorge National Scenic Area
☒ WAU Prescriptions: ARS4,ARS5,ARS6
☒ Habitat Conservation Plan ☒ HCP Crosswalk(s)
☐ Landowner Option Plan for Northern Spotted Owl
☐ Cooperative Habitat Enhancement Agreement

RESOURCE REVIEW
☒ Potentially Unstable Slopes ☐ In ☒ Around
☒ Soils Map ☒ Highly Erodible ☒ Highly Unstable
☒ SLPSTAB | ☒ 40+% ☒ 70+%
☒ Landslide Inventory Polygon
☐ Avalanche ☐ WSDOT ☐ FP
☒ Rain-on-Snow ☒ Outside Approved WA
☐ Hydric Soils
☐ Wetland ☐ Forested ☐ A ☐ B ☐ HCP
☐ In WMZ of ☐ A ☐ B Wetland
☐ In RMZ/ELZ of Type ☐ S ☐ F ☐ Np
☒ HCP Buffers ☐ LGE Buffers ☐ Np 29'
☐ Bull Trout Overlay ☒ HCP Bull Trout Population
☐ Arsenic Plume 40.1+ ☐ WNHP Rare Species
☐ Group A or B Water Supply
☐ Hatchery | Name:
☐ Even-Aged Harvest greater than 120 Acres
☐ Ground-based Equipment on Slopes at or greater than 40%
☐ Road Construction on Slopes at or greater than 65%
☐ Saltwater Islands ☐ Long Term Commitment Area
☒ In or Over Typed Water ☒ S ☐ F ☒ Np ☒ Ns
☐ Water Verification ☐ Wetland Verification ☐ WAI

ASSOCIATED NON-SCANNED DOCUMENTS – On file with the FPA/N at the Region office.
☒ SEPA Checklist/Documents
☒ Road Maintenance and Abandonment Plan # R2800010L

ASSOCIATED SCANNED DOCUMENTS
☐ Appendix A: Water Type Classification Worksheet
☐ New ☐ Old | WTMF #
☒ Appendix D: Slope Stability Informational Form
☒ Qualified Expert ☐ Report ☒ Letter/Memo
☐ Appendix E: CMZ Assessment Form
☐ Appendix F: Stream Shade Assessment ☐ 16° ☐ 18°
☐ Appendix G: Np RMZ Worksheet
☐ Appendix H: Natural Regeneration Plan
☒ Appendix I: Watershed Analysis Worksheet
☐ Appendix J: Marbled Murrelet Form
☐ FPHP Plans & Specifications
☐ SFLO RMAP Checklist # ☐ FFFPP
☐ COHP
☐ SEPA DNS/MDNS ☐ LGE Permit(s)/Info
☐ DFC Printout
☐ Other:

ADDITIONAL COMMENTS:

☐ ICN ☐ SWO ☐ NTC # ☒ Previous ☐ Adjacent FPA # Form completed by: as

2811754, 2816783

For DNR Region Office Use Only	
FPA/N #:	2818896
Region:	NW
Received Date:	2/3/2023

Forest Practices Application/Notification
Western Washington

Project Name: Brokedown Palace #86386

PLEASE USE THE INSTRUCTIONS TO COMPLETE THIS APPLICATION.

1. Landowner, Timber Owner and Operator

Legal Name of LANDOWNER	Legal Name of TIMBER OWNER	Legal Name of OPERATOR
Department of Natural Resources	☒ Same as Landowner	☒ Same as Landowner
Mailing Address: 919 N. Township	Mailing Address:	Mailing Address:
City, State, Zip: Sedro-Woolley, WA 98284	City, State, Zip:	City, State, Zip:
Phone: (360) 856-3500 Email:	Phone: Email:	Phone: Email:

2. Contact Person

Contact Person:	Phone: (360) 856-3500
Laurie Bergvall	Email: DNRRENWTimberSales@dnr.wa.gov

3. Are you converting any portion of the land to non-forestry use within 3 years of harvest?

☒No ☐Yes If yes, include your SEPA checklist and SEPA determination (if applicable) and county clearing and grading permit (if applicable).

4. If you are harvesting timber, enter the Forest Tax Number of the Timber Owner:

_____

Contact the Department of Revenue at 360-534-1324 for tax reporting information or to obtain a number.

a. Are you eligible for EARR Tax Credit? ☐No ☒Yes

5. Are you a small forest landowner per RCW 76.09.450? See instructions

☒No ☐Yes If yes, **Check all that apply**. If no, skip to Question 6.

- ☐ My entire proposed harvest area is on a single contiguous ownership consisting of one or more parcels.
- ☐ My proposed forest practices activities are within an area covered by an approved Forest Stewardship Plan or Forest Management Plan developed in cooperation with DNR.
- ☐ I received technical assistance from a DNR small forest landowner Stewardship and Technical Assistance Forester in preparing this FPA/N.
- ☐ I have participated in a Washington State University Extension Service and/or DNR-sponsored Forest Stewardship Coached Planning course.
- ☐ I have attended a Washington State University Extension Service and/or DNR-sponsored Family Forest Owner Field Day.

6. Are you substituting prescriptions from an approved state or federal conservation agreement or Watershed Analysis?

☐No ☒Yes Write 'HCP' or 'Using Prescriptions' in tables that apply. Attach or reference prescriptions and/or crosswalks for approved state or federal conservation agreements or Watershed Analysis on file at the Region office.

7. What is the legal description of your forest practices?

Section	Township	Range	E/W	Tax Parcel Number	County
18, 19, 20, 30	38	06	E		Whatcom
24,25,36	38	05	E		Whatcom

Note: Does not include legal description for pre-haul maintenance; it is not a Forest Practices regulated activity.

8. Have you reviewed this forest practices activity area to determine whether it may involve historic sites and/or Native American cultural resources? Read the instructions before answering this question.

☐No ☒Yes If you made any contacts, please provide information in Question 28.

9. Do you have a DNR approved Road Maintenance and Abandonment Plan (RMAP)?

☐ No Is a Small Forest Landowner RMAP Checklist required (see instructions)? ☐No ☐Yes

☒ Yes Enter your RMAP number: R2800010L

Is this FPA/N for work that is included in this approved RMAP? ☐ No ☒ Yes

10. Are there potentially unstable slopes or landforms in or around the area of your forest practices activity?

☐No ☒Yes If yes, attach Appendix D. Slope Stability Informational Form and map of areas reviewed for and locations of unstable slopes and landforms found. If applicable, attach a geotechnical letter, memo, or report, Watershed Analysis prescriptions, and/or a SEPA Environmental Checklist.

11. Is this Forest Practices Application/Notification (answer every question):

a. ☒No ☐Yes A request for a multi-year permit? If yes, length requested: ☐ 4 years or ☐ 5 years. Not everyone qualifies for a multi-year permit. See instructions for details.

b. ☒No ☐Yes An Alternate Plan? If yes, include a template or detailed plan. See instructions for details.

c. ☒No ☐Yes For a funded Forest Family Fish Passage Program project?

d. ☒No ☐Yes Within an urban growth area? If yes, see instructions for additional required documents.

e. ☒No ☐Yes Within a public park? If yes, include SEPA Environmental Checklist or SEPA Determination, except for harvest/salvage of less than 5,000 board feet within a developed public park. Park name: _____

f. ☒No ☐Yes Within 500 feet of a public park? Park name: _____

g. ☒No ☐Yes In an approved Conversion Option Harvest Plan (COHP) from the local government? If yes, include a copy. This only applies to proposals within urban growth areas.

h. ☒No ☐Yes Within 200 feet of the Ordinary High Water Mark (OHWM) or floodway of Type S Water? If yes, check with the county or city to determine whether a substantial development permit is required under the local shorelines master plan.

i. ☐No ☒Yes Within 50 miles of saltwater AND you own more than 500 acres of forest land in Washington State? If yes, include Marbled Murrelet Form or attach/reference HCP prescriptions.

j. ☒No ☐Yes In or directly adjacent to a potential Channel Migration Zone (CMZ)? If yes, include CMZ Assessment Form. Attach/reference applicable HCP and/or Watershed Analysis prescriptions.

You are required to verify all waters within 200 feet of your proposed forest practices activities prior to submitting a Forest Practices Application / Notification. Use the Water Type Classification Worksheet and/or a Water Type Modification form to explain how you verified water types. See Water Typing Requirements in the instructions.

*** * * * * <u>If not working in or over typed Waters, skip to Question 16</u> * * * * ***

Prior to answering Questions 12-15 in this section please refer to the Forest Practices Application Instructions and Forest Practices Board Manual Section 5.

12. Are you proposing any of the following projects NOT permitted by current HPAs from WDFW?

a. ☒ No ☐ Yes Installing, replacing, or repairing a culvert at or below the bankfull width of Type S or F Water(s) that exceeds a five percent gradient?

b. ☒ No ☐ Yes Constructing, replacing, or repairing a bridge at or below the bankfull width of unconfined streams in Type S or F Water(s)?

c. ☒ No ☐ Yes Placing fill material within the 100-year flood level of unconfined streams in Type S or F Water(s)?

13. Have you consulted with DNR and/or WDFW about the proposed hydraulic project(s) in or over Type S or F Water? ☒ No ☐ Yes

14. If installing, replacing, removing, or maintaining structures in or over any typed Water, complete the table below. Provide crossing locations and identifiers on your Activity Map. Provide plan details in Question 28 or attach plan to the FPA/N. Type S and F Waters require detailed plan information. Complex hydraulic projects in Type N Waters may also be required per WAC 222-24-042(2). See instructions for detailed plan requirements.

Crossing Identifier *(letter, number)*	**Water Type** *(S, F, Np, Ns)*	***Existing HPA Number** *(if applicable)*	**HPA Expiration Date** *(if applicable)*	**Planned Activity** *(install, replace, remove, temporary, structure maintenance)*	**Structure** *(bridge, ford/equipment crossing** puncheon/fill, arch, pipe arch, round culvert, other)*	**Proposed Size** (*width x length)*	**Culvert Design Method** (*no-slope, stream-sim, hydraulic, other) (F and S only)*	**Channel Bed Width** *(ft) (F and S only)*	**Stream Gradient** *(%) (F and S only)*	**Is this an RMAP Project?**
1. JJ-25 (9+65)	5			Install	Culvert	24" x 40'				N
2. JJ-25 (15+99)	4			Install	Culvert	24" x 40'				N
3. JJ-25 (21+93)	5			Install	Culvert	24" x 40'				N

*Existing HPAs issued by WDFW will be complied and enforced by WDFW until expiration. Plan details are not required for hydraulic projects permitted with an existing HPA (see instructions).

**Fords and/or equipment crossings on Type S and F Waters may result in an unauthorized incidental take of certain threatened or endangered fish species. For more information, see 'Background for the State's Incidental Take Permits for certain threatened and endangered fish species' following Question 22 of the FPA/N Instructions.

15. If conducting any of the following activities in or over typed Water(s), complete the table below. Some activities will require identifiers on the Activity Map and/or more information in Question 28. See instructions.

***Activity**	**Type S Water**	**Type F Water**	**Type Np Water**	**Type Ns Water**
Equipment Crossing**	**PROVIDE DETAILS IN QUESTION 14**			X
Suspending Cables	X		X	X
Cable Yarding			X	X
LWD Placement/Removal				
Beaver Dam Removal				
Felling and Bucking			X	X
Other *(describe in Question 28)*				

** Fords and/or equipment crossings on Type S and F Waters must be identified in Question 14.

16. If constructing or abandoning forest roads, complete the table below. Show the road locations and identifiers on the Activity Map. Include abandonment plans for all temporary roads and abandonment projects.

Road Identifier *(name, number)*	**Road Construction**		**Road Abandonment**	
	Length *(feet)*	**Steepest Side-slope** *(%)*	**Length** *(feet)*	**Abandonment Date**
MF-55	965	60	965	04/2026
JJ-25	3700	50		
Total	4665	60	965	

17. **If depositing spoils and/or expanding or developing a rock pit for forestry use, complete the table below. Show locations and identifiers on the Activity Map.**

Spoil Area Identifier *(letter, number)*	Amount of Spoils Deposited *(cubic yards)*
W	100

Rock Pit Identifier *(name, number or letter)*	Acres of New Rock Pit Developed	Acres of Existing Rock Pit Expanded
1. St Stephen Pit	0.25	N/A
2. McCoy Pit	0.25	N/A
3. Silver Star Pit	0.25	N/A

18. **If operating within 200 feet of a wetland that is not associated with Type S or F Water, complete the table below. Wetlands associated with Type S or F water should be listed in Question 25. Show the boundaries of each wetland, along with its identifier, and Wetland Management Zones on the Activity Map. See instructions for information.**

Wetland Identifier *(letter, number)*	Wetland Type *(A, B, Forested)*	Planned Activities in Wetland	Planned Activities in Maximum Width WMZ	Total Wetland Acres	How many Acres will be drained?	How many Acres will be filled?

* * * * * **If not harvesting or salvaging timber, skip to Question 27** * * * * *

19. **If harvesting or salvaging timber, complete the table below. Show all harvest areas and unit numbers on the Activity Map. For even-aged harvest units, also show surrounding stand information on the Activity Map.**

Unit Number	Harvest Type *(Even-aged, Uneven-aged, Salvage, Right-of-Way)*	Biomass Harvest *(Y or N)*	Harvest Method *(rubber tired skidder, tracked skidder, dozer, shovel, full suspension cable, leading end suspension cable, helicopter, cable assist/tethered logging, animal, chipper, forwarder, slash bundler)*	Acres to be Harvested	Volume to be Harvested *(mbf)*	Biomass Volume to be Harvested *(tonnage)*	Volume to be Harvested *(%)*	Steepest Slope in Harvest Unit *(%)*
1*	Even-aged	N	ground, cable, and cable-assist	69.0	3,038	NA	95%	150%

*Includes approximately 0.3 acres of Right-of-Way on the JJ-25

20. Reforestation. Check all that apply:

☒ Planting. Tree Species: Douglas-fir, western redcedar

☐ Natural. Include a Natural Regeneration Plan

☐ Not required because of one or more of the following:

- ☐ I am converting some or all of this land to non-forest land in the next 3 years or lands are exempted under WAC 222-34-050.
- ☐ Individual dead, dying, down, or wind-thrown trees will be salvaged.
- ☐ Trees are removed under a thinning program reasonably expected to maximize the long-term productivity of commercial timber.
- ☐ I am leaving at least 100 vigorous, undamaged, and well-distributed saplings or merchantable trees per acre.
- ☐ An average of 190 tree seedlings per acre are established on the harvest area and my harvest will not damage them.
- ☐ Road right-of-way or rock pit development harvest only.

* * Do you own MORE than 80 acres of forest land in Washington? If yes, skip to Question 25 * *

21. Are you using the exempt 20-acre parcel riparian management zone (RMZ) rule (WAC 222-30-023) on Type S, F, or Np Waters?

☐ No Skip to Question 25.

☐ Yes Continue to Question 22. See instructions for qualifications and information.

22. Choose the answer below that best fits your situation. Show all RMZs on the Activity Map.

☐ **a.** ALL of the following apply to me and my land: (If no, answer b.)

- Between June 5, 2006 and today's date I have always owned less than 80 acres of forest land in Washington.
- Between June 5, 2006 and today's date this parcel has always been 20 acres or less of contiguous ownership. See RCW 76.09.020 for definition of 'contiguous'.
- Between June 5, 2006 and today's date this parcel has always been owned by me or someone else that has owned less than 80 acres of forest land in Washington.

b. ONE OR MORE of the following apply to me and/or my land (check all that apply):
If any of the statements below apply AND you use the exempt 20-acre parcel RMZ rule, you are NOT authorized under the State's Incidental Take Permits (see explanation in FPA instructions under Question 22).

- ☐ Between June 5, 2006 and today's date I have owned more than 80 acres of forest land in Washington.
- ☐ Between June 5, 2006 and today's date this parcel has been a part of more than 20 acres of contiguous ownership. See RCW 76.09.020 for definition of 'contiguous'.
- ☐ Between June 5, 2006 and today's date this parcel has been owned by someone that has owned more than 80 forested acres in Washington?

23. If harvesting within 115 feet of a Type S or F Water on an exempt 20-acre parcel, complete the table below. Show RMZs and stream segment identifiers on the Activity Map. If you are harvesting within 75 feet or within the maximum RMZ (whichever is less), stream shade must be assessed and met following harvest. Describe in Question 28 how stream shade was determined to be met, using the 'Appendix F. Stream Shade Assessment Worksheet' if necessary.

Stream Segment Identifier *(letter)*	**Water Type** *(S, F)*	**Segment Length** *(feet)*	**Bankfull Width** *(feet)*	**RMZ Maximum Width** *(feet)*	**Are you harvesting within the maximum RMZ?** *(Y or N)*

24. Are you harvesting within 29 feet of a Type Np Water on an exempt 20-acre parcel?

☐ No Skip to Question 27.

☐ Yes See instructions and describe leave tree strategy in Question 28. Then skip to Question 27.

25. If harvesting within 200 feet of any Type S or F Water or periodically inundated areas of their associated wetlands, complete the table below. Include Desired Future Condition (DFC) for all inner zone harvests unless you have an HCP prescription. Show RMZs, CMZs, and stream segment identifiers on the Activity Map. If you are harvesting within 75 feet or within the maximum RMZ, whichever is less, stream shade must be assessed and met following harvest. Describe in Question 28 how stream shade was determined to be met or use the 'Appendix F. Stream Shade Assessment Worksheet' if necessary.

Stream Segment Identifier *(letter)*	**Water Type** *(S, F)*	**Site Class** *(I - V)*	**Stream Width** *(feet)*	**Is there a CMZ?** *(Y or N)*	**RMZ Harvest Code(s)** *(see instructions)*	**DFC Run Number**	**Total width of RMZ** *(feet)*
See Aquatics Addendum							

26. If harvesting within 50 feet of Type Np Water, complete the table(s) below. Show RMZs and stream segment identifiers on the Activity Map.

Stream Segment Identifier *(letter)*	**Total Stream Length in Harvest Unit** *(feet)*	**Length of No-Harvest, 50-foot Buffers in Harvest Unit** *(feet)*
See Aquatics Addendum		

Stream Segment Identifier *(letter)*	**Total Stream Length in Harvest Unit** *(feet)*	**Length of No-Harvest, 50-foot Buffers in Harvest Unit** *(feet)*

27. How are the following currently marked on the ground? *(Flagging color, paint color, road, fence, etc.)*

Harvest/Salvage Boundaries: "Timber Sale Boundary" tags, and pink flagging along timber type breaks and property lines.

Clumped Wildlife Reserve Trees/Green Recruitment Trees: "Leave Tree Area" tags and yellow ringed trees.

Right-of-Way Limits/Road Centerlines: Centerline flagged and ROW limits marked with "Right-of-Way Boundary" tags.

Stream Crossing Work: Flagged by operator and approved by state lands CA with consultation of FP forester.

Riparian Management Zone Boundaries and Leave/Take Trees: Not applicable

Channel Migration Zone: Not Applicable

Wetland Management Zone Boundaries and Leave/Take Trees: Not Applicable

28. Additional Information (attach additional pages if necessary): For hydraulic projects in or over Type S, F, or complex N Water(s) see instructions for required plan information. If applicable, include mitigation measures from a geotechnical memo, letter, or report.

See FPA Narrative.

29. We acknowledge the following:

- The information on this application/notification is true.
- We understand this proposed forest practice is subject to:
  - The Forest Practices Act and Rules AND
  - All other federal, state or local regulations.
- Compliance with the Forest Practices Act and Rules does not ensure compliance with the Endangered Species Act or other federal, state or local laws.
- If we said that we would not convert any portion of the land to non-forestry use, the county or city may deny development permits on this parcel for the next 6 years.
- The following may result in an unauthorized incidental take of certain endangered or threatened fish species:
  - Conversion of land to non-forestry use.
  - Harvesting within the maximum RMZ on a 20-acre exempt parcel that was acquired after June 5, 2006.
  - Equipment Crossings/Fords in or over Type S and F Waters.
- Inadvertent Discovery – Chapters 27.44, 27.53, 68.50 and 68.60 RCW
  - If you find or suspect you have found an archaeological object or Native American cairn, grave, or glyptic record, immediately cease disturbance activity, protect the area and promptly contact the Department of Archaeology and Historic Preservation at 360 586-3077.
  - If you find or suspect you have found human skeletal remains, immediately cease disturbance activity, protect the area, and contact the County Coroner or Medical Examiner and local law enforcement as soon as possible. Failure to report human remains is a misdemeanor.

The landowner understands that by signing and submitting this FPA, he/she is authorizing the Department of Natural Resources to enter the property in order to review the proposal, inspect harvest operations, and monitor compliance for up to three years after its expiration date. RCW 76.09.150

Signature of Legal LANDOWNER	**Signature of Legal TIMBER OWNER*** *(If different than landowner)*	**Signature of Legal OPERATOR** *(If different than landowner)*
Print Name: Kody A Beesley	Print Name:	Print Name:
Date:	Date:	Date:

** NOTE: If you are a "Perpetual Timber Rights Owner," and are submitting this without the Landowner's Signature, provide written evidence the landowner has been notified.*

Please make a copy of this FPA/N for your records. If this FPA/N contains a hydraulic project requiring WDFW concurrence review, it will not be available online for public review until after the WDFW concurrence review period.

Broke Down Palace

Sale Name Brokedown Palace App. No _____

FPA Narrative

This proposed activity is being conducted on lands covered by the Department's multi-species HCP. These planned activities are consistent with our approved HCP dated September 1997 and associated Incidental Take Permits. See the attached HCP checklist for habitats and species both covered by our HCP agreement and specifically addressed with this proposal. Additionally, attached are DNR proprietary HCP/FPA substitute Addendums for Aquatic Resources, Northern Spotted Owl and Marbled Murrelets.

Questions #8:
A meeting was held with representatives from various tribes on March 14, 2022 in order to provide more comprehensive information concerning this and other proposals. Staff from the Lummi Nation, Nooksack Indian Tribe, Swinomish Indian Tribal Community, and the Upper Skagit Indian Tribe, were invited to participate in this meeting. Consultation letters were sent out on August 24, 2022 to the Nooksack Indian Tribe, Lummi Nation, Upper Skagit Indian Tribe and the Swinomish Indian Tribal Community.

Question #14:

Note: See Culvert Location Map for structure locations on the proposal.

Question #15:
Further information relating to this question:
In order to achieve adequate deflection, cables may be suspended over type 1, 4 and 5 streams. If yarding occurs over type 5 streams, lead end of logs will be suspended over streams. Equipment for ground-based operations will cross type 5 streams at designated crossings. Type 5 stream crossings by ground-based equipment shall be as close to perpendicular as possible and may require log cribbing, culvert installation, or other approved methods to be in place to protect channels and banks. Timber will be fallen and yarded away from all streams when possible.

Question #17:
Additional pit(s) may be developed/utilized along haul route or constructed roads. These will be less than 0.5 acre, and located outside RMZs or sensitive areas.

Question #19:
Ground-based equipment operations will be limited to sustained slopes 40% or less. Self-leveling equipment may be used on sustained slopes 55% or less. Tethered equipment may be utilized on this proposal.

Question #28:
Activity Map – Leave Tree locations depicted are approximate. Leave trees may be exchanged or traded to locations other than mapped on the Activity Maps to facilitate operational feasibility, except for those shown as non-tradable.

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It is anticipated that this proposal will be a Class IV Special Forest Practices Forest Application as it is located in the Nuxw'iqw'em Cultural District.

Hutchinson WAU ARS5
New Road Construction:

1. **Cross-drain spacing (must follow Forest Practices Board Manual guidelines: See attached Brokedown Palace Road Plan.**
2. **Surfacing (type and amount): See attached Brokedown Palace Road Plan.**
3. **Road geometry: See attached Brokedown Palace Road Plan.**
4. **Seeding and/or mulching of cutslopes/fillslopes/ditchlines concurrent with the operations: See attached Brokedown Palace Road Plan.**
5. **Construction schedule: Construction work will not be permitted from November 1 through March 31, of each calendar year for the life of the Forest Practices Permit.**

Additional Q.16 Road Abandonment
Per the FPA Instructions:
A written plan that shows how the road will be left to:
**Control erosion*
**Maintain water movement within wetlands and other natural drainages, and*
**Prevent four-wheeled highway vehicles from entering the point of closure.*

The following will be accomplished as applicable to meet the on-site conditions during the course of road abandonment work:

* Remove all ditch relief culverts. The resulting slopes will be 1:1 or flatter. Place and compact the removed fill material in a location that will not erode into any typed waters or wetlands.
* Remove all culverts in natural drainages. The resulting slopes will be 1 ½ :1 or flatter. Strive to match the existing native stream bank gradient. The natural streambed width will be re-established. Place and compact the removed fill material in a location that will not erode into any typed waters or wetlands.
* Transport all removed culverts off site.
* Construct non-drivable waterbars at natural drainage points and at a spacing that will produce a vertical drop of no more than 20 feet between waterbars and with a maximum horizontal spacing of 400 feet.
* Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
* Key waterbars into the cut-slope to intercept the ditch. Waterbars will be outsloped to provide positive drainage. Outlets will be on stable locations.
* Inslope or outslope the road as appropriate.
* Remove bridges and other structures as applicable.
* Pull back unstable fill that has potential of failing and entering any typed waters or wetlands. Place and compact removed material in a stable location.
* Remove berms except as designed.
* Block the road by constructing an aggressive barrier of dense interlocked large woody debris (logs, stumps, root wads, etc.) so that four wheel highway vehicles cannot pass the point of

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abandonment. Typical barrier dimensions are 10 feet high by 20 feet deep, spanning the entire road prism from top of cutslope to toe of fillslope. Long term effectiveness is the primary objective. If necessary construct a vehicular turn-around near the point of abandonment.
* Apply grass seed to all exposed soils resulting from the abandonment work.
*May provide a protective cover for seed if revegetation occurs between July 1 and March 31. The protective cover may consist of dispersed straw, jute matting, or clear plastic sheets.

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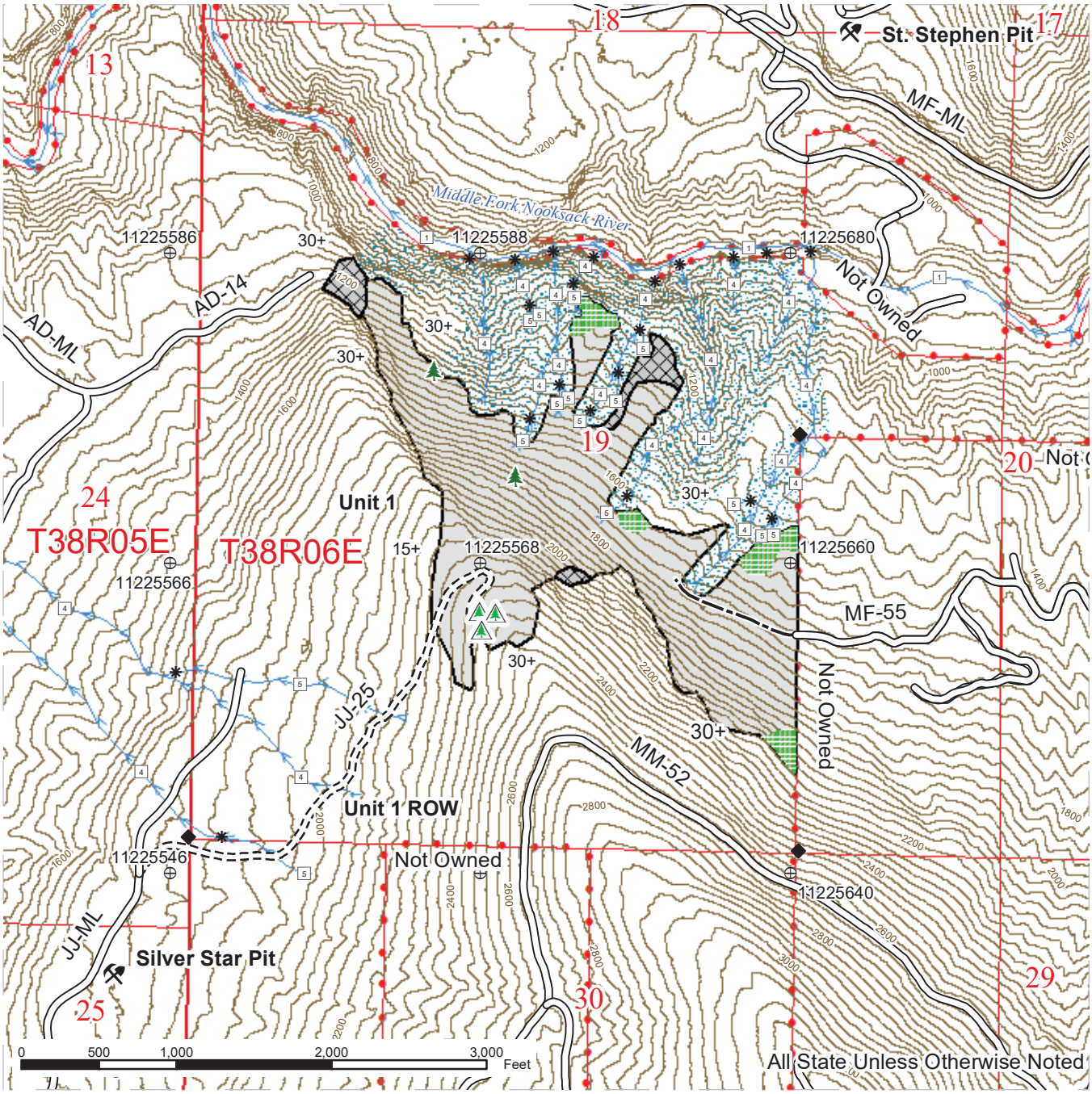
FOREST PRACTICES ACTIVITY MAP

SALE NAME: BROKEDOWN PALACE
APPLICATION #: TBD by FP Staff

COUNTY(S): Whatcom
TOWNSHIP(S): T38R6E



- Even-aged Harvest
- DNR Managed Lands
- Non-Tradeable Leave Clump
- Leave Tree Area
- Riparian Mgt Zone
- Existing Roads
- Construction
- Temporary Construction
- Streams
- Stream Type
- Stream Type Break
- Leave Tree Area <1/4-acre
- Non-Tradeable Leave Trees
- Rock Pit
- Found Survey Monuments

N

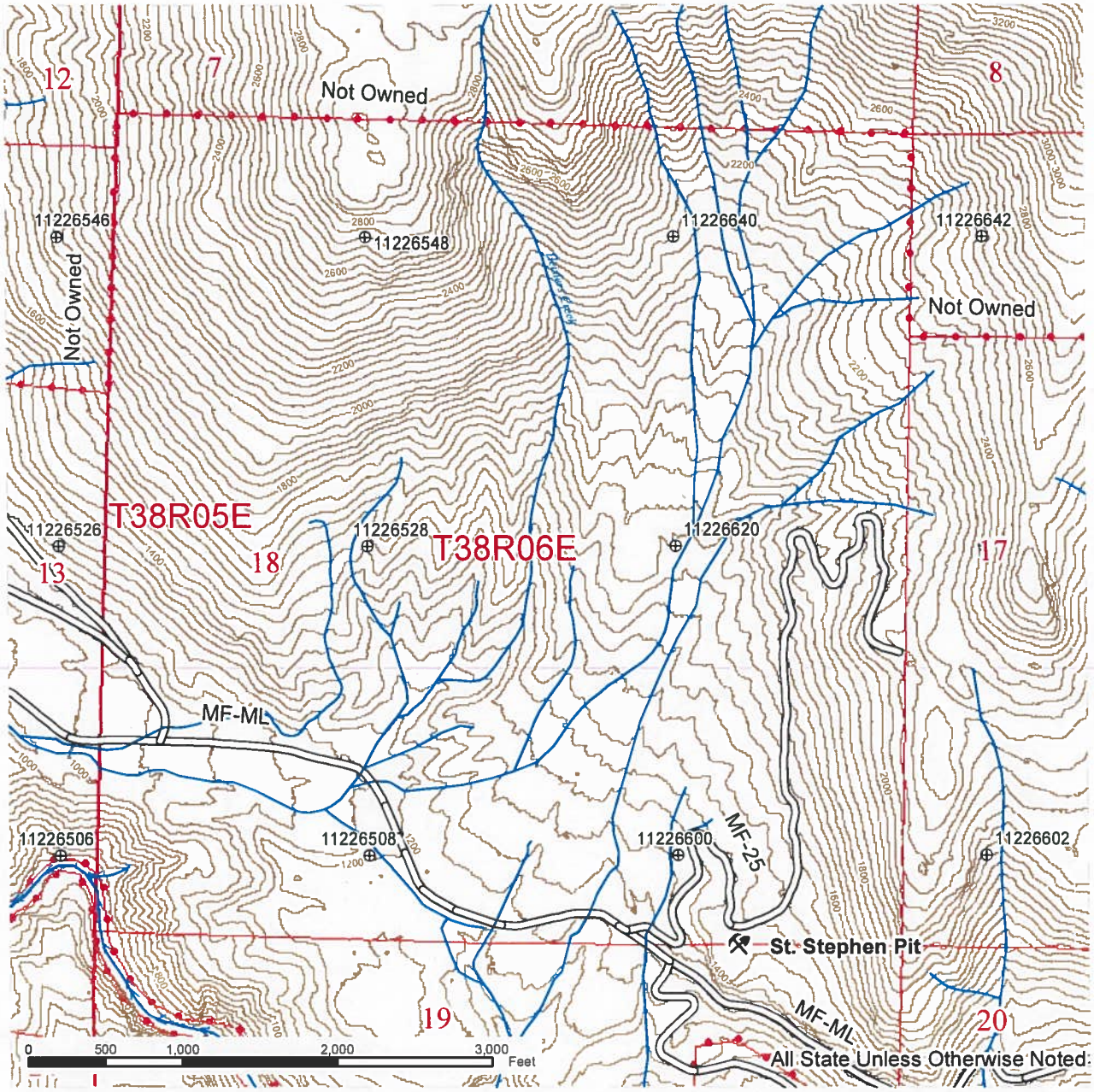
Prepared By: kbly490

Modification Date: kbly490 8/23/2022

FOREST PRACTICES ACTIVITY MAP

SALE NAME: BROKEDOWN PALACE
APPLICATION #: TBD by FP Staff

COUNTY(S): Whatcom
TOWNSHIP(S): T38R6E



- DNR Managed Lands
- Existing Roads
- Streams
- Stream Type
- Stream Type Break
- Rock Pit

N

Prepared By: kbly490

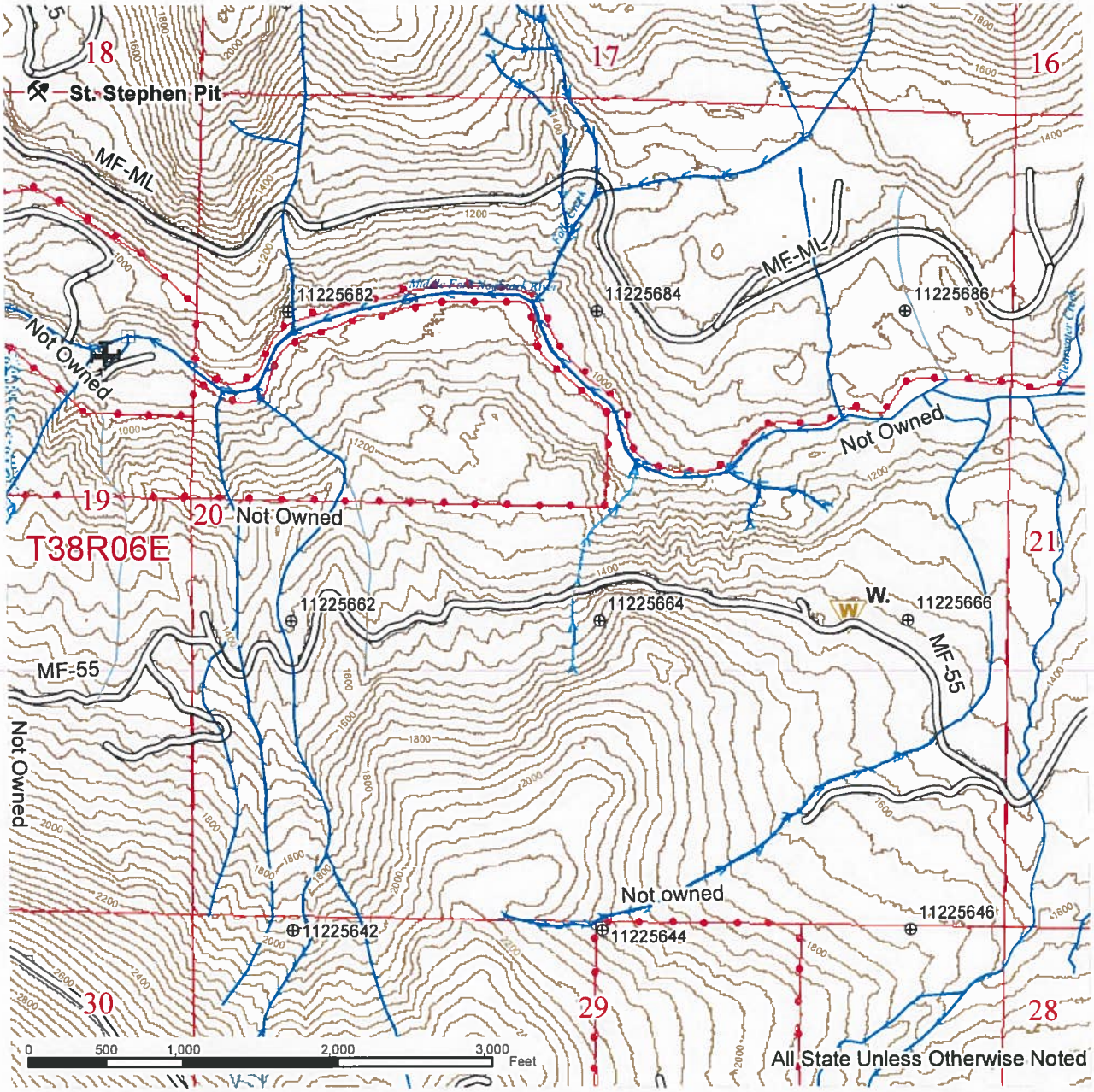
Modification Date: anss490 2/8/2023

2818896

FOREST PRACTICES ACTIVITY MAP

SALE NAME: BROKEDOWN PALACE
APPLICATION #: TBD by FP Staff

COUNTY(S): Whatcom
TOWNSHIP(S): T38R6E



DNR Managed Lands
Riparian Mgt Zone
Existing Roads
Streams
Stream Type
Stream Type Break
Other Feature 1
Rock Pit
Waste Area

N

Prepared By: kbly490

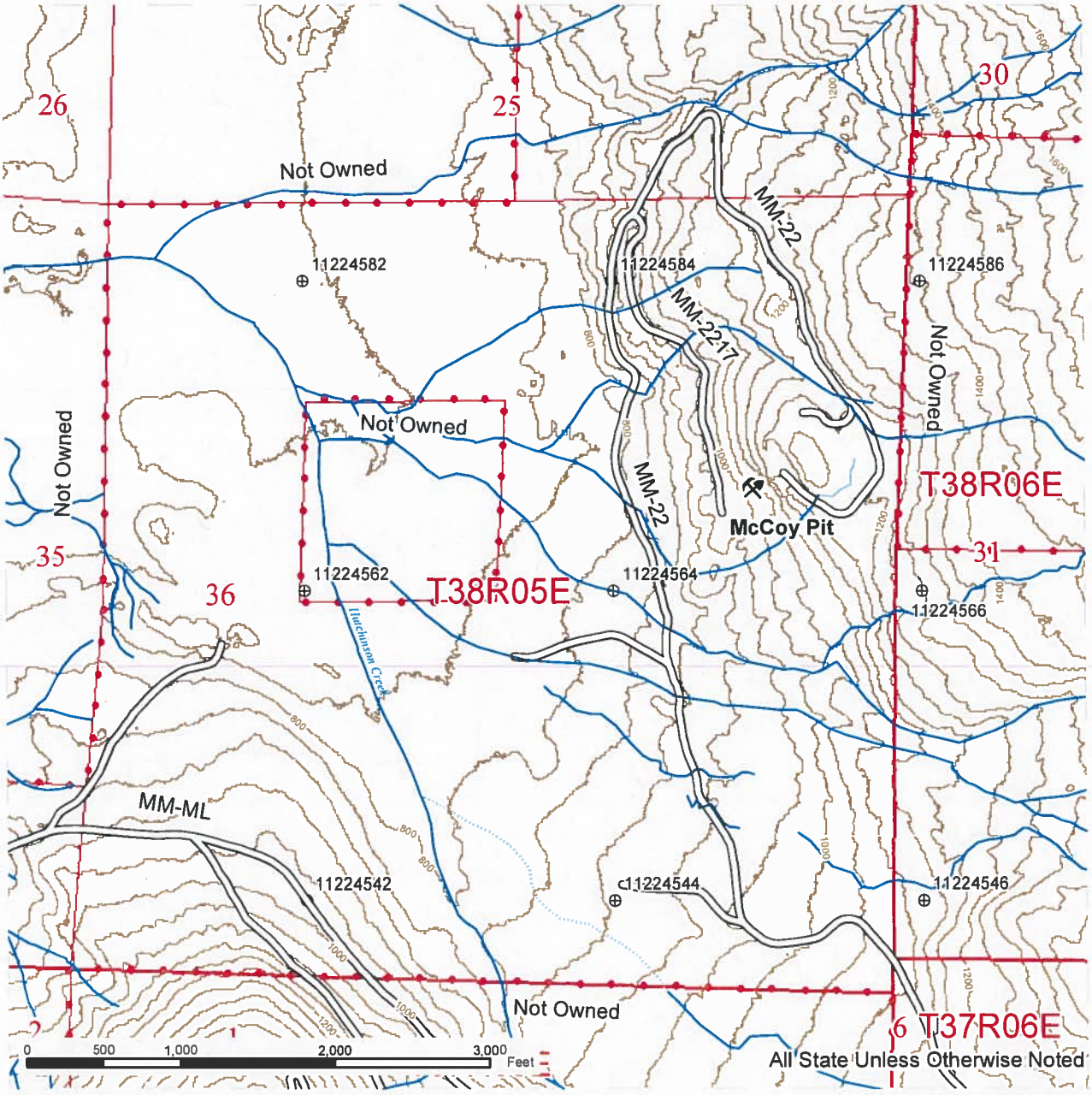
Modification Date: anss490 2/8/2023

2818896

FOREST PRACTICES ACTIVITY MAP

SALE NAME: BROKEDOWN PALACE
APPLICATION #: TBD by FP Staff

COUNTY(S): Whatcom
TOWNSHIP(S): T38R6E



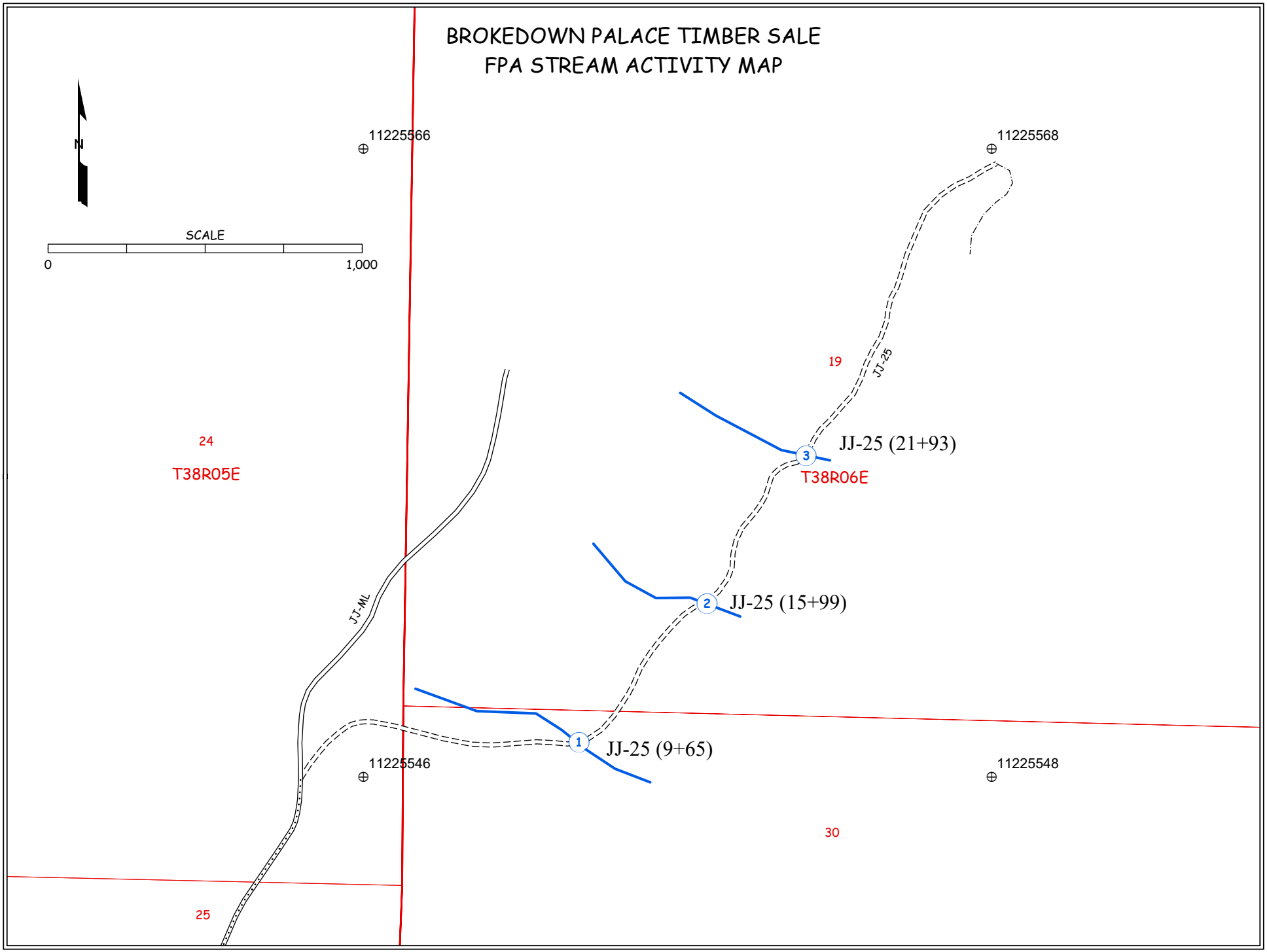
- DNR Managed Lands
- Existing Roads
- Stream Type
- Stream Type Break
- Rock Pit

N

Prepared By: kbly490

Modification Date: anss490 2/8/2023

2818896

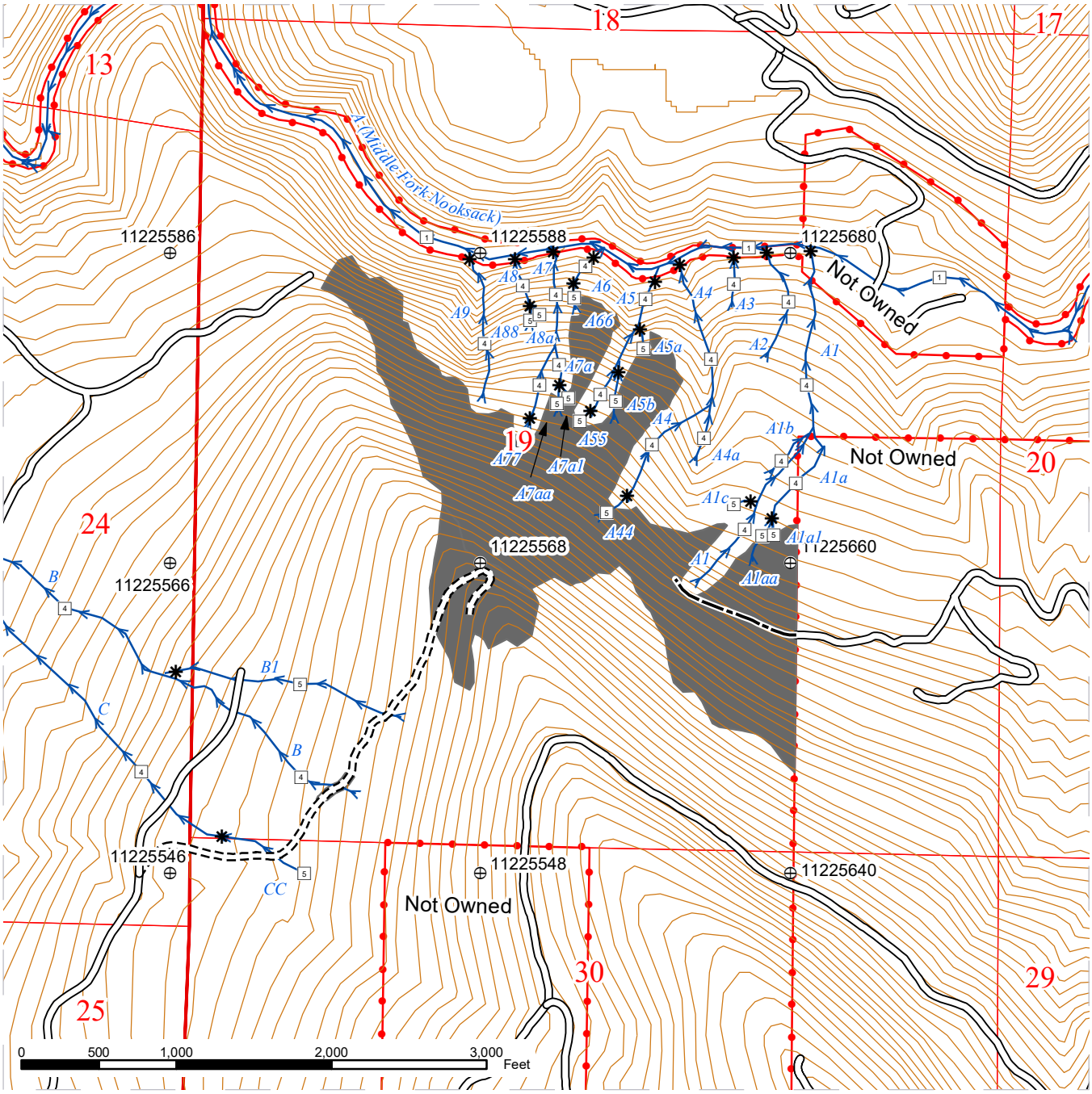

BROKEDOWN PALACE TIMBER SALE
FPA STREAM ACTIVITY MAP
N
SCALE
0
1,000
11225566
11225568
11225546
11225548
19
24
25
30
T38R05E
T38R06E
JJ-ML
JJ-25
JJ-25 (21+93)
JJ-25 (15+99)
JJ-25 (9+65)
1
2
3

2818896

FOREST PRACTICES STREAM MAP

SALE NAME: BROKEDOWN PALACE
APPLICATION #: TBD by FP Staff
TOWNSHIP(S): T38R6E

COUNTY(S): Whatcom



Timber Sale Unit
DNR Managed Lands
Existing Roads
New Construction
Temporary Construction
Existing Stream
Stream Type
Stream Type Break

N

Prepared By: kbly490

Modification Date: kbly490 8/11/2022

2818896

Appendix D. Slope Stability Informational Form

Complete and attach this form to your FPA/N if you indicated you are working in or around potential unstable slopes or landforms. Instructions for this appendix is located in in the Forest Practices Application/Notification Instructions document. Refer to WAC 222-16-050(1)(d) and Forest Practices Board Manual Section 16 - *Guidelines for Evaluating Potentially Unstable Slopes* for definitions and descriptions of potentially unstable slopes or landforms.

1. a. What preliminary screening tools were used to identify unstable slopes or landform features in and/or around your proposal?

☒ Aerial Photo ☒ LiDAR ☒ Landslide Inventory ☒ GIS ☒ Field Review ☐ Other, describe:

Office review by licensed Engineering Geologist (LEG).

b. Did any of the features identified during the preliminary screening (1.a.) not exist when you performed a field review? ☐ No, go to Question 2.a. ☒ Yes, describe:

LSI polygon 32063 was not present; see geologist meorandum for further details. LSI polygon 30935 was present, though there was some error in mapping.

2. a. Are you conducting forest practices activities **in or over** potentially unstable slopes or landforms?

☐ Inner Gorge ☐ Groundwater recharge areas for glacial deep-seated landslides
☐ Bedrock Hollow ☐ Convergent Headwall ☐ Outer edges of meander bends
☐ Toe of deep-seated landslide with slopes ≥ 65%
☐ Category E - see instructions and describe below *(i.e.: Active deep-seated landslides and others)*
☐ Other, describe:

b. What activities may occur **in or over** potentially unstable slopes or landforms? Check all that apply:

☐ Timber harvest ☐ Road construction ☐ Suspending cables ☐ Yarding ☐ Tailholds

3. a. Are you conducting forest practices activities **around** potentially unstable slopes or landforms?

☒ Inner Gorge ☐ Groundwater recharge areas for glacial deep-seated landslides
☒ Bedrock Hollow ☒ Convergent Headwall ☐ Outer edges of meander bends
☐ Toe of deep-seated landslide with slopes ≥ 65%
☐ Category E - see instructions and describe below *(i.e.: Active deep-seated landslides and others)*
☐ Other, describe:

b. What activities may occur **around** potentially unstable slopes or landforms? Check all that apply:

☒ Timber harvest ☒ Road construction ☒ Suspending cables ☒ Yarding ☒ Tailholds

4. a. Were any features identified in Question 3.a. excluded from your forest practices activity?

☐ No, go to Question 5. ☒ Yes, continue to Question 4.b.

b. Describe the field indicators you used to exclude potentially unstable slopes or landforms from your forest practices activity *(i.e.: flagging was placed a crown width away from the break in slope of the inner gorge.):*

Flagging and sale tags were placed a crown width or more from the break in slope of the inner gorge and bedrock hollows around the proposal. For the convergent headwall around the proposal a 1H:1V buffer from the slope crest into the headwall was put in place.

5. Are there areas of public use located in or around the area of your proposed forest practices activity?

☐ No, go to Question 6 ☒ Yes, check all that apply and show locations on the map in Question 7.

☐ Public Road(s) ☒ Utilities ☐ Designated Recreation Area(s) ☐ Occupied Structure(s)

☒ Other, describe:

The Middle Fork Nooksack River is downslope and downstream of the proposal.

6. Complete the table below with date(s) and person(s) that conducted field review(s):

Date	Name	Title/Position
10/06/2021	Noah Dudley, LEG	State Lands Geologist
10/06/2021	Kody Beesley	Forester

7. Attach a map that shows the following:

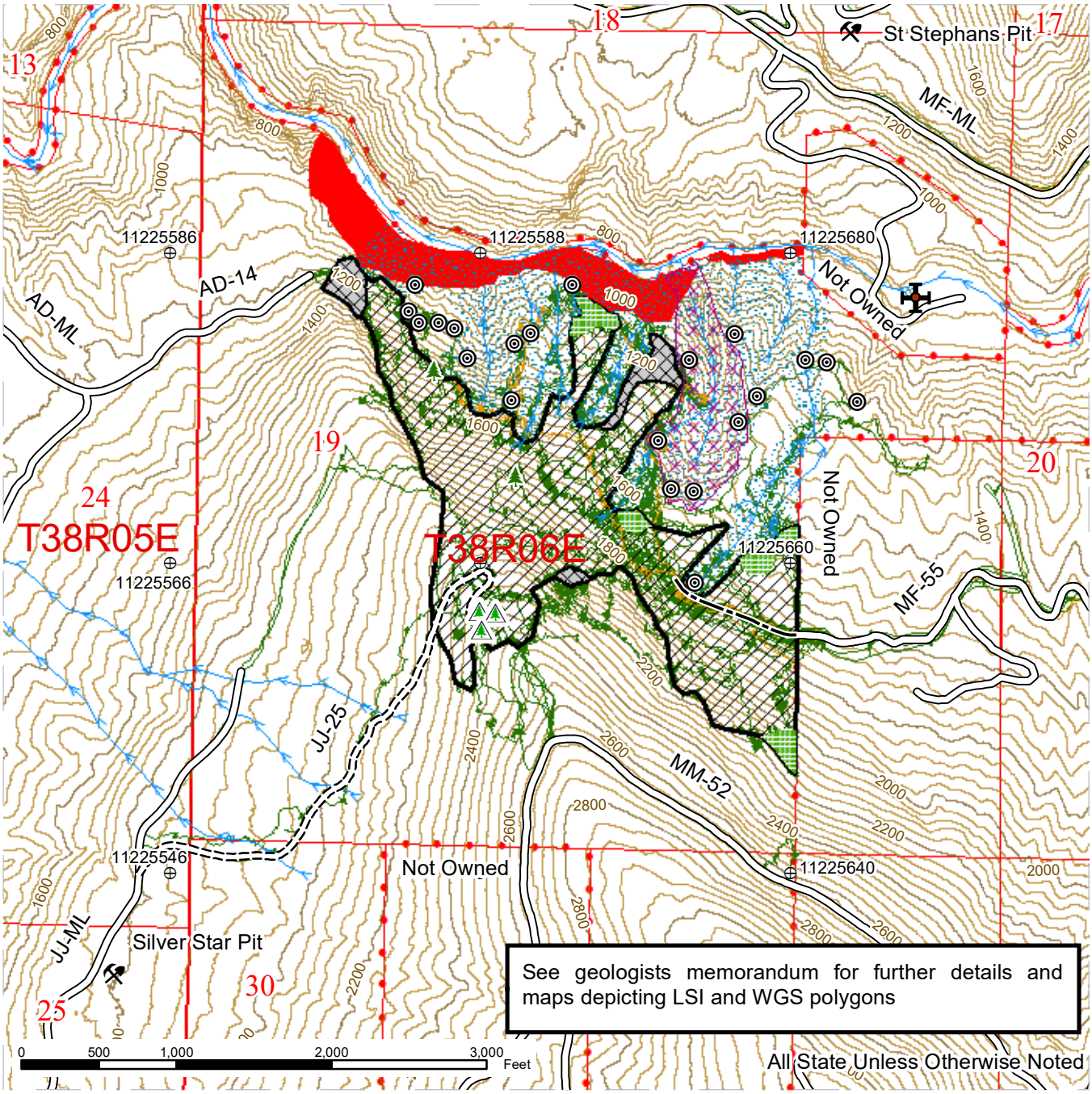
- Show all areas reviewed.
- Show locations of unstable slopes and landforms that were identified as described in Question 2.a. and 3.a. above.
- Show locations where areas of public use exist as described in Question 5 above.

This map is intended to be developed by the field practitioner. This can be a forest practices activity map, harvest map, or GIS map – See instructions for example map.

SLOPE STABILITY MAP

SALE NAME: BROKEDOWN PALACE
APPLICATION #: TBD by FP Staff

COUNTY(S): Whatcom
TOWNSHIP(S): T38R6E



- Even-aged Harvest
- DNR Managed Lands
- Non-Tradeable Leave Clump
- Leave Tree Area
- Riparian Mgt Zone
- Convergent Headwall
- Inner Gorge
- Existing Roads
- New Construction
- Temporary Construction
- Streams
- Forester and Geologist Tracks
- Forester Tracks
- Leave Tree Area <1/4-acre
- Non-Tradeable Leave Trees
- Water Intake City of Bellingham
- Bedrock Hollow
- Rock Pit

N

Prepared By: kbly490

Modification Date: kbly490 9/14/2022

DEPARTMENT OF
NATURAL RESOURCES

FOREST RESOURCES DIVISION
1111 WASHINGTON ST. SE
OLYMPIA, WA 98504

360-995-2477
NOAH.DUDLEY@DNR.WA.GOV
WWW.DNR.WA.GOV

June 24, 2022

TO: Kody Beesley, Forester, Baker District, Northwest Region, DNR

FROM: Noah Dudley, LEG #19110609, QE, Forest Resources Division, DNR

SUBJECT: Geologic Field Summary for the Broke Down Palace Timber Harvest, Whatcom County, Washington

This letter documents my observations of potentially unstable slopes around the Broke Down Palace timber harvest (proposed harvest) during field reconnaissance on October 6, 2021 with Kody Beesley (forester).

The proposed harvest consists of one 69-acre unit. DNR proposes ground-based, cable, and tethered equipment harvest methods. Proposed forest management activities include variable retention harvest, new road construction, and temporary road construction. The harvest area is within the Porter Canyon Watershed Analysis Unit (WAU), which drains to the Middle Fork Nooksack River. Approximately 1200 feet of proposed road construction on an existing abandoned grade is within the Hutchinson Creek WAU (See Appendix I of the FPA).

The proposed harvest area is located on moderate to steep slopes. The average slope within the harvest area is 69 percent (based on a LiDAR slope raster histogram). Rule-identified landforms around the proposed harvest include a convergent headwall, bedrock hollows, and inner gorges. The timber harvest boundary excludes rule-identified landform, therefore there is a low potential for the proposed harvest to deliver sediment to a public resource or impact public safety.

Prior to the field visits, I conducted a remote review using the following resources:

- Washington State Department of Natural Resources (DNR) GIS data including:
  - Digital orthophotographs from the 1990's, 2003, 2006, 2009, 2013, 2015, 2017, 2019
  - Light detection and ranging (lidar) data acquired in 2017
  - 1:100,000-scale geologic mapping[1]
  - Forest Practices Landslide Inventory (LSI) mapping – polygons in and around.
  - Watershed Analysis Landslide Hazard Zonation (LHZ) mapping –high instability potential in the Hutchinson creek WAU.

[1] Lapen, Thomas J., 2000, Geologic map of the Bellingham 1:100,000 quadrangle, Washington: Washington Division of Geology and Earth Resources Open File Report 2000-5, 36 p., 2 plates, scale 1:100,000.

    - WGS deep-seated landslide inventory mapping – polygons in and around.
- Historic aerial photographs from 1943, 1955, 1967, 1976, 1979, 1981, 1989

This letter documents Rule-Identified landform interpretations, key observations used to make those interpretations, and the proposed mitigations and recommendations. It is not intended to document the full engineering geologic review that I conducted for this harvest, nor is it intended to satisfy the requirements for a Class IV special Forest Practices Application. This proposal is a Class IV special because it is within the Nuxwt'íqw'em cultural district.

Landslide Databases Review

I used the Forest Practices landslide inventory (LSI) database and the WGS landslide inventory as screening tools (Figure 1). The Forest Practices landslide hazard zonation (LHZ) database is only available for the Hutchinson Creek WAU, and shows the area of approximately 1200 feet of new road construction as high-instability potential. This new road construction will follow an existing abandoned grade over gentle to moderate slopes. I did not observe the remote evidence of potentially unstable slopes in this area. The slope stability trained forester and engineer also did not observe such evidence.

Washington Geological Survey (WGS) Landslide Inventory:

The WGS lidar-based deep-seated landslide inventory mapped two deep-seated landslide polygons around the proposed harvest, one to the east and one across the Middle Fork Nooksack to the north (Figure 1)[2]. The WGS did not field verify the landslides discussed in this report. Both landslides are outside the proposed management area, and slopes within the harvest drain away from them. An existing road grade crosses the toe of the eastern landslide. I did not observe evidence of instability at this location during my field review.

Forest Practices Landslide Inventory (LSI) polygons:

There are four Forest Practices LSI polygons in the proposed harvest vicinity. The harvest area overlaps with LSI polygon 32063.

[2] Mickelson, K. A.; Contreras, T. A.; Gallin, W. N.; Jacobacci, K. E.; Slaughter, S. L., 2020, Landslide inventory of western Whatcom County, Washington: Washington Geological Survey Report of Investigations 42, 7 p. text, with an accompanying Esri file.

Table 1. *Forest Practices Landslide Inventory Table*

LSI ID#	*ID date*	*Landform, Certainty*	*Delivery to a public resource?*	*QE Observations*	*Proposed Mitigation*
32060	1981	Inner Gorge, Probable	Yes	Did not visit in field. Appears to be steep bedrock cliff bands along Middle Fork gorge.	None – excluded from the proposed management area
32063	1943	Not Available, Probable	Indeterminate	Broadly convergent, glacially scoured terrain with bedrock cliff bands. Does not appear to be a deep-seated landslide in LiDAR.	None – Rule-Identified landforms within polygon excluded from proposed management area, as elsewhere
30925	1981	Inner gorge, Probable	Yes	Bedrock cliff band at scarp. Vertical conifers and old growth remnants and stumps.	None – excluded from the proposed management area.
30935	1998	Not Available, Probable	Yes	Convergent headwall in glacial substrate. Shallow landslides and erosion on margins. Prounounced canopy gaps.	Landform is excluded from proposed harvest. 1:1 buffer was applied for additional protection.

Convergent Headwall

A convergent headwall in glacial substrate drains to the Middle Fork Nooksack. This headwall appears in the FP landslide inventory as LSI # 30935, and is visible throughout the aerial photo record extending back to 1943. I did not observe evidence of measurable head ward (upslope) expansion of the headwall in the aerial photo record.

In the field, I observed undermined roots at the headwall with exposed glacial till (very dense, tan, silty, gravelly, sand, concrete like texture). Traversing downslope along the margin of the headwall, I observed repeating sequences of glacial till, glacial outwash (dense, gravelly sand to sandy gravel) and glaciolacustrine (Laminated silt and clay) deposits.

Within the headwall, tree cover is patchy and dominated by disturbance vegetation. Steep slopes with exposed soil are common. I did not observe evidence of deep-seated instability in the headwall during my field or office review.

Image 1: East end of headwall from medial ridge

The standard mitigation for convergent headwalls is exclusion from forest management activities. Given the direct delivery potential to the Middle Fork Nooksack River, and high degree of observed instability, I recommended additional protection beyond the minimum required by the Forest Practice Rules. I consulted with the forester on applying a 1H:1V buffer from the slope crest to maintain rooting strength and canopy interception on slopes that directly drain to the headwall.

I used the following process in GIS software to create the 1H:1V headwall buffer:

1. Draw a polyline along the headwall crest
2. Measure the height of steep (>70%) unstable slopes below the headwall crest at points along the polyline
3. Measure and draw upslope points from the headwall crest a lateral distance equal to the height of the nearest steep headwall slopes
4. Connect the upslope and crest points to create a buffer polygon
5. Constrain the lateral margins using drainage divides such as swales or ridges

In my opinion, with or without forest management upslope of this landform, the headwall is unstable and will continue to erode. Continued erosion will likely deliver sediment to the Middle Fork Nooksack River either by fluvial (stream) transport) or debris flow processes. Given

the headwall's size, instability, and delivery potential, DNR voluntarily elected to apply increased protections through the 1H:1V buffer.

Image 2: 1943 Aerial Photograph showing convergent headwall. Note exposed soil. Photo georeferencing is approximate.

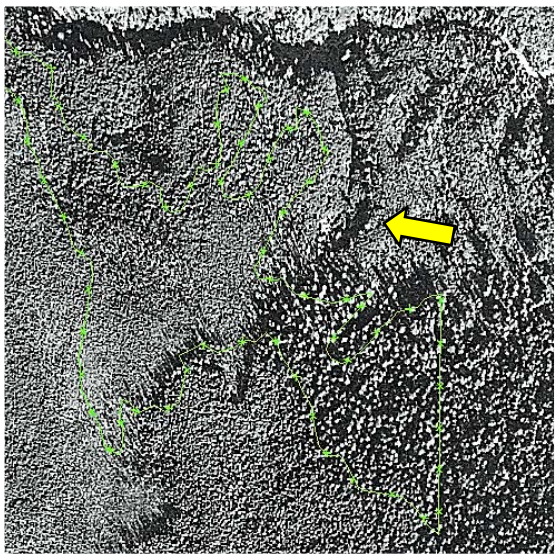
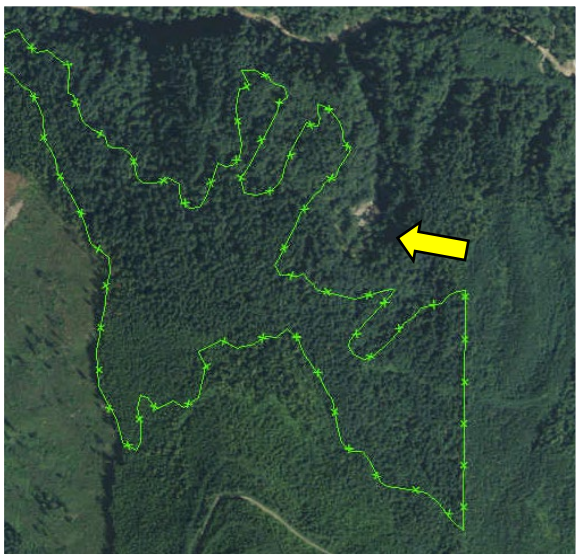


Image 3: 2009 Aerial Orthophotograph showing convergent headwall. Note exposed soil.



Bedrock hollows and Inner Gorges

The forester and I identified several bedrock hollows and inner gorges around the proposed harvest area. These are excluded from the proposed harvest through timber sale boundary tags. Refer to Appendix D of the FPA for additional slope stability information.

Conclusion

The Broke Down Palace timber harvest excludes potentially unstable Rule-Identified landforms. The DNR excluded these features with harvest boundary tags following recommendations from a licensed engineering geologist. In my opinion, because the proposed harvest excludes potentially unstable Rule-Identified landforms, there is a low likelihood that the proposed forest practices will cause or contribute to movement on these landforms.

Limitations

This field summary is intended to summarize landform interpretations in and around the proposed Broke Down Palace timber harvest to DNR's foresters and engineers. This letter is not intended to document the full engineering geologic analysis conducted for this proposed timber harvest, instead it is intended to document the primary observations that form the basis of the Rule-Identified landform interpretations that are present, or interpreted to not be present, in or around the proposed forest practices activities.

Mitigation recommendations presented in this report were developed collaboratively with the forester. While forest practices inherently involve risk, the mitigations presented in this memorandum are intended to minimize adverse impacts on slope stability due to forest practices activities. Conclusions are based on professional judgement and do not guarantee slope stability or absolute absence of risk.

The conclusions presented in this report were developed using limited information, including office-based screening tools and surficial geologic observations, as they existed at the time of the field visits. Actual geologic conditions may differ from those presented in this report. Site conditions can change with time and additional geologic information may become available. If this occurs, geologic interpretations and recommendations may require modification. It is not possible to fully define the geologic conditions of the site based on this limited investigation; however, the work was performed using practices consistent with geologic and geotechnical industry standards for forest slope stability in the region, at the time of this report. It is not possible to predict slope movement with certainty with the available scientific knowledge.

Do not rely on the interpretations or conclusions presented in this memorandum for any activities other than those evaluated for the proposed Broke Down Palace timber harvest. If any changes in the proposed FPA or road plan are formulated or carried out differently in the field than currently proposed, conclusions and recommendations shall not be considered valid unless those changes are reviewed in writing by the author or author's representative. No one other than the DNR should rely on this report.

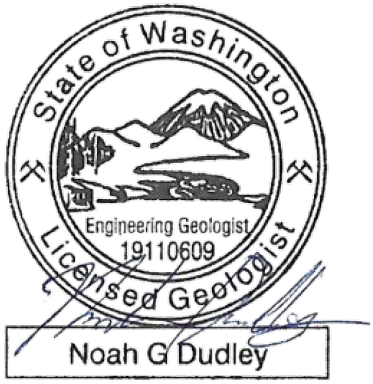
References

Washington Forest Practices Board, 2016, Washington Forest Practices Board manual: Washington Forest Practices Board, 1 v.

Lapen, Thomas J., 2000, Geologic map of the Bellingham 1:100,000 quadrangle, Washington: Washington Division of Geology and Earth Resources Open File Report 2000-5, 36 p., 2 plates, scale 1:100,000.

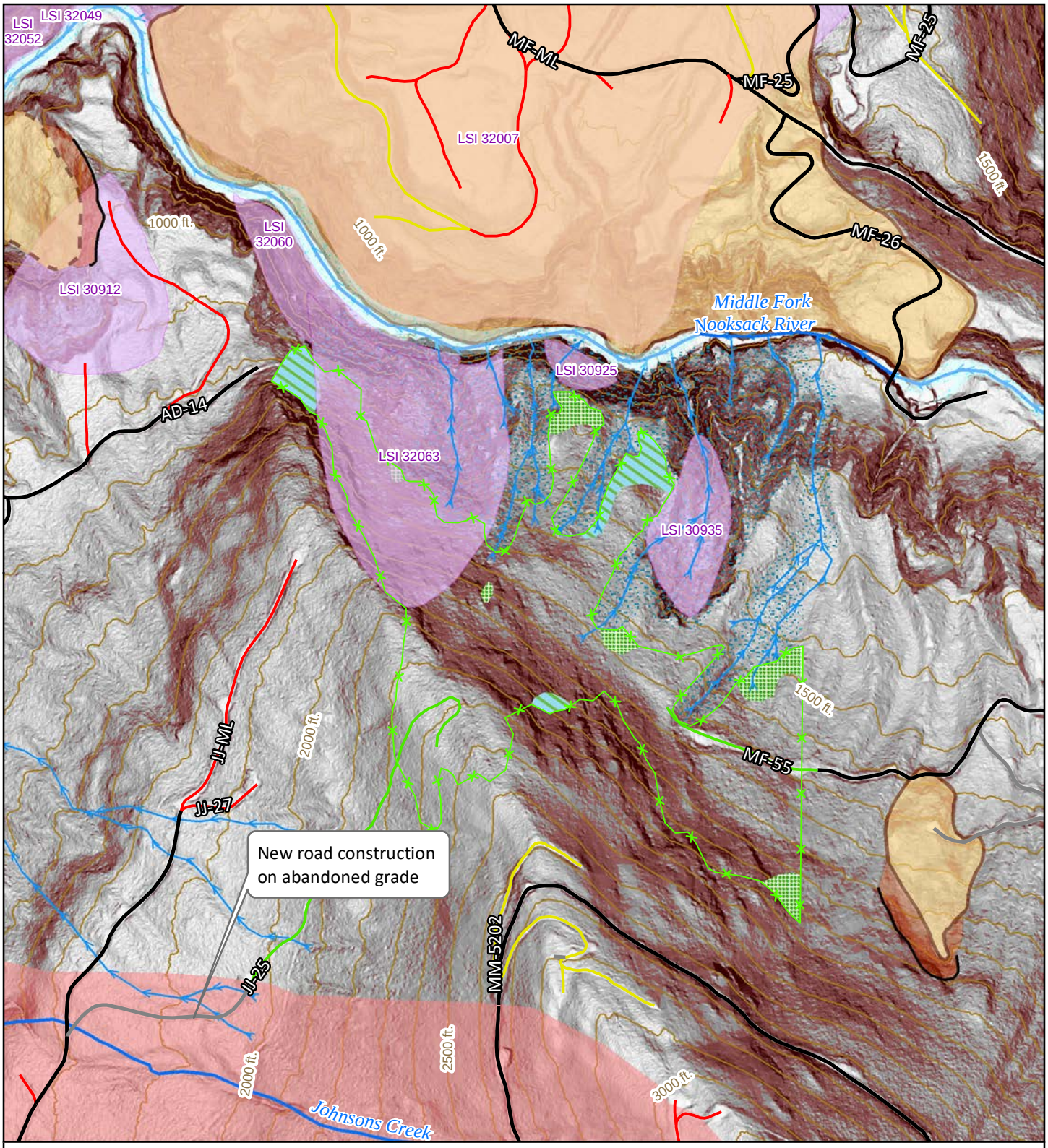
ATTACHMENTS:

Figure 1, Landslide Inventory Map
Figure 2, Geomorphology Map



6/24/2022

Noah Dudley, QE, LEG # 19110609
State Lands Geologist



Legend

State Lands - Roads by Activity Status

Road Status

- 1: Active
- 5: Approved Abandoned
- 6: Orphaned
- 7: Planned
- 9: Unknown
- Variable Retention Harvest
- Forester Delineated Streams
- Non-Tradeable Leave Tree Area
- Leave Tree Area
- Riparian Mgt Zone
- Open Freshwater
- Major Stream
- WGS Landslide Scarps

WGS Landslide Deposits

CONFIDENCE

- High (30-40)
- Moderate (11-29)
- WGS Landslide Scarps and Flanks

Forest Practices Landslide Inventory

- Probable

Forest Practices - Landslide Hazard Zones

- High instability potential
- 100-ft. contour
- Slope 0 - 70%
- Slope >70%

Fig. 1

LANDSLIDE INVENTORY MAP

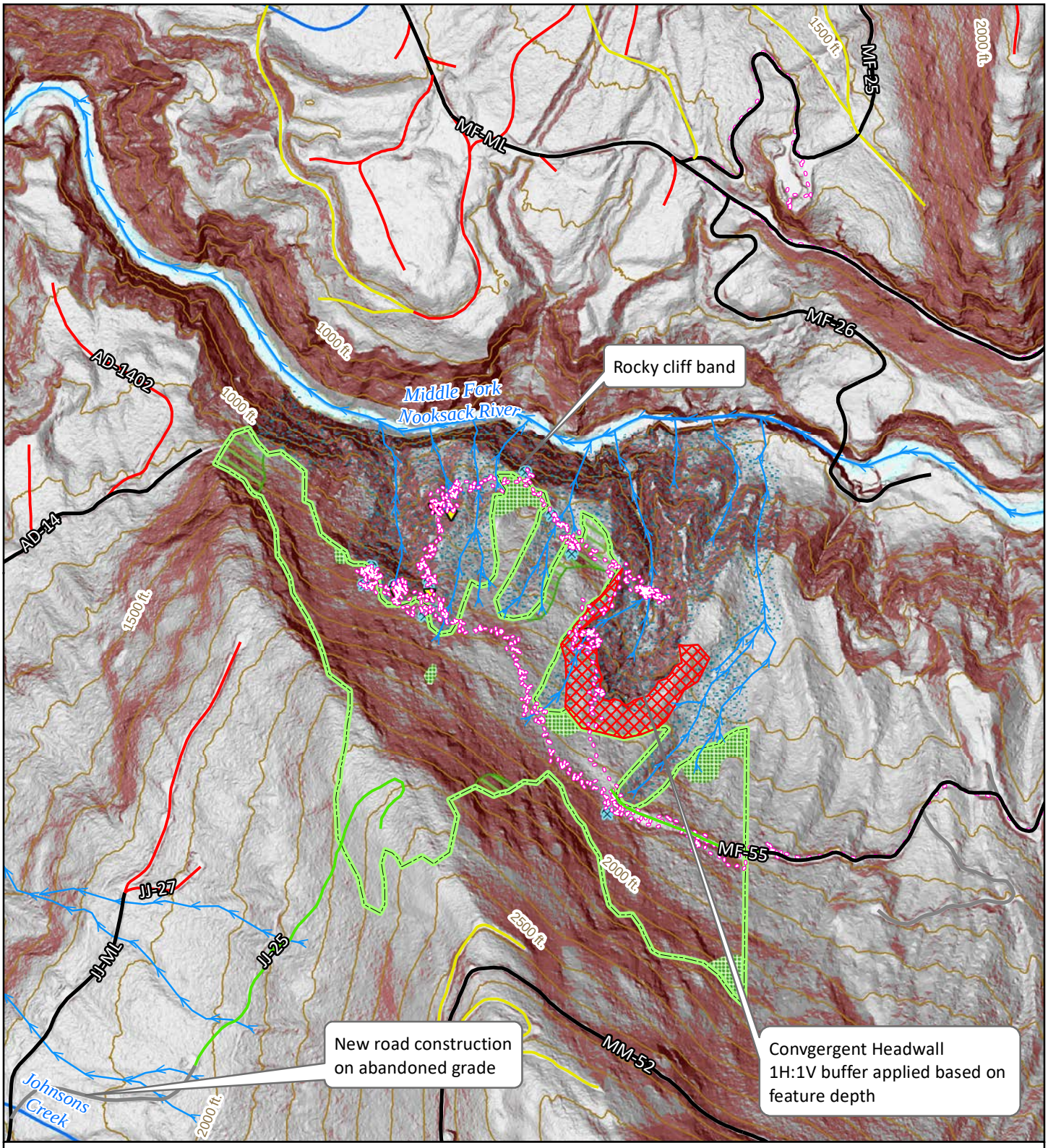
Broke Down Palace Timber Sale

800 Ft.

Scale 1:9,600

Washington State Department of Natural Resources

2818896



Legend

- Variable Retention Harvest
- Forester Delineated Streams
- Non-Tradeable Leave Tree Area
- Leave Tree
- Riparian Mgt Zone
- Major Stream
- 1:1 Buffer
- Geologist Tracks

Rule-identified landform (point)

- Bedrock hollow
- Bedrock Outcrop

State Lands - Roads by Activity Status

Road Status

- 1: Active
- 5: Approved Abandoned
- 6: Orphaned
- 7: Planned
- 9: Unknown
- Open Freshwater
- 100-ft. contour
- Slope 0 - 70%
- Slope >70%

Fig. 2

GEOMORPHOLOGY MAP

Broke Down Palace Timber Sale

800 Ft.

Scale 1:9,600

Washington State Department of Natural Resources

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Appendix I. Watershed Analysis Worksheet

(Use a separate worksheet for each Watershed Analysis)

Watershed Analysis Name: Hutchinson WAU

Check all of the following that apply:

- ☐ I have reviewed the Watershed Analysis Prescription documents and my proposal is not located on or adjacent to any of the described features. Prescriptions do not affect my proposal.
- ☒ I have reviewed the descriptions and maps for all prescriptions, and my proposal is located on or adjacent to the following prescription areas:
  - ☒ Surface Erosion Prescriptions
  - ☐ Mass Wasting Prescriptions
  - ☐ Hydrology Prescriptions
  - ☐ Water Quality
  - ☐ Water Supply / Public Works
  - ☐ Riparian – only applicable to landowners using the exempt 20-acre RMZ rule

Complete the following information for each prescription that affects your proposal or is adjacent to your proposal.
Identify the resource sensitivity name and whether or not you are implementing the prescriptions.
Attach required reports and additional information as necessary.

Resource Sensitivity Name/No: ARS4 **Implementing Prescription:** ☒ **Yes** ☐ **No**

Describe harvest techniques proposed	Harvest adjacent to type 5 streams is on the right-of-way on an existing road grade in a 20 year old stand. Trees cut will be felled/yarded away from streams. No cable/ground-based yarding in the area.
Describe road techniques proposed	
Describe other techniques proposed	

Resource Sensitivity Name/No: ARS5 **Implementing Prescription:** ☒ **Yes** ☐ **No**

Describe harvest techniques proposed	
Describe road techniques proposed	Road construction and maintenance will meet RMAPs and Forest Practices standards. See FPA Narrative for New Road Construction techniques.
Describe other techniques proposed	

Resource Sensitivity Name/No: ARS6 **Implementing Prescription:** ☒**Yes** ☐ **No**

Describe harvest techniques proposed	
Describe road techniques proposed	Road work will meet RMAP standards, including using cross drain culverts to disperse ditch water, and sizing culverts to 100-year flow. Current rules meet or exceed the prescription.
Describe other techniques proposed	

DNR USE ONLY Reviewed by: BA Date: 2/8/2023

Revised: 10/1/2018

2818896
Received 2/8/2023

Forest Practices Application/Notification Addendum
DNR Proprietary HCP, WAC Replacement Summary for Aquatic Resources, 2008
Five West-side Planning Units, Excluding the OESF

Please refer to the DNR Proprietary HCP Substitution Agreement for Aquatic Resources, 2008. Please check all HCP prescriptions and/or activities, which are relevant to this proposal and describe the management prescriptions and final stand composition at the end of this checklist.

NOTE: When assessing hydrologic maturity for each sub-basin inside the rain-on-snow zone, DNR staff will use the most updated data layer delineating Watershed Administrative Units as designated by Forest Practices.

☐ Assessing Hydrologic Maturity in the Rain-On-Snow (ROS) Zone (Refer to item A in the Agreement Memo). If the activity lies within the ROS zone and subbasin will be managed for ROS, fill out the following table. If within ROS zone, but subbasin will not be managed for ROS, describe why in additional information section below.

1. SUB-BASIN NAME	2. TOTAL ROS ACRES (DNR) WITHIN SUB-BASIN	3. HYDRO MATURE TARGET ACRES (2/3 of Column 2)	4. CURRENT DNR SUB-BASIN ACRES IN HYDRO MATURE FOREST IN ROS	5. ACRES OF HYDRO MATURE FOREST TO BE REMOVED	6. SUPRLUS (+) OR DEFICIT (-) ACRES AFTER ACTIVITY
Porter Canyon Sub-basin 2*					

☐ Wetlands Protection, road construction within wetlands or wetland buffers, requires mitigation. (Refer to item B in the Agreement Memo). If this activity will include road construction within a wetland or WMZ, describe the type of wetland, potential loss of wetland function and how and where the loss of function will be mitigated.

☐ Harvesting within Forested Wetlands. (Refer to items C & E in the Agreement Memo). Describe the remaining stand characteristics within the wetland and map any forested wetlands greater than 3 acres.

☐ Wetland Management Zones. (Refer to item D in the Agreement Memo). Describe the site index and WMZ width. If harvesting within the WMZ, describe the remaining stand characteristics within the WMZ.

☒ Riparian Management Zones for Type 1, 2 and 3 Waters (Refer to item F and Appendix 1 in the Agreement Memo). Describe the site index, RMZ width and if a wind buffer was applied. Describe if the RMZ begins from the outer edge of a CMZ or 100-year floodplain and how they were typed.

☒ Riparian Management Zones for Type 4 and 5 Waters (Refer to item G and Appendix 1 in the Agreement Memo). Describe any special protection for Type 5 waters.

☐ Harvesting or Salvaging within Type 1, 2, 3 and 4 Riparian Management Zones. (Refer to item F-J and Appendix 3 in the Agreement Memo). If harvesting, describe the general

HCP Riparian Forest Restoration Strategy management scenario under which the proposal's riparian stand will be managed. Describe stand treatment including removals, down wood and snag recruitment and type of activities. Describe post-harvest stand; how it meets the management parameters of the general management scenario, what species composition and diameter classes will remain, trees per acre, basal area, relative density. If salvaging, describe how you will be meeting the RDFC conditions, what you will retain and removals and other salvage/restoration conditions described within the Ecosystem Services Section approved site specific restoration plan (and/or attach plan).

Please provide any requested additional information below. If varying from standard HCP guidance, attach concurrence/variance approval from Land Management Division and/or Federal Services and discuss below (e.g. research).

*DNR ownership within the rain on snow zone within Porter Canyon Sub-basin2 is less than 50%, and so the procedure does not apply.

See attached riparian checklist table for RMZ Site Index widths of type 1 waters. See State Lands Water typing worksheet for how streams were typed. All buffers start at the edge of the 100-year floodplain. No wind buffers put in place.

Harvest units within 200 feet of OHWM of type 1 (Shoreline of the State) stream, but not a Shoreline of Statewide Significance.

Type 5 streams have a 30-foot equipment limitation zone.

See attached riparian checklist table for individual stream segment and wetland information.

Forest Practices Application/Notification Addendum
DNR Proprietary HCP, WAC Replacement Summary for Aquatic Resources, 2008
Five West-side Planning Units, Excluding the OESF

Stream Segment Identifier or **Wetland Identifier**	**Water Type** or Wetland "**forested or open water**"	Site Class FP Base Map / Other source	Stream Width (feet) or Wetland Size	Is there a CMZ? **Yes or No**	**Thinning RMZ/WMZ? Yes or No**	**Total Width of RMZ/WMZ** FP width / Actual width (feet)	**Wind Buffer? Yes, No (for T-3, 2, 1) or N/A**
A	1	III	>2ft	No	No	140'/162'*	No
A1	4	IV	>2ft	No	No	0-50'/100'	N/A
A1a	4	IV	>2ft	No	No	0-50'/100'	N/A
A1aa	5	III	<2ft	No	No	30' ELZ	N/A
A1a1	5	III	<2ft	No	No	30' ELZ	N/A
A1b	4	IV	>2ft	No	No	0-50'/100'	N/A
A1c	5	IV	<2ft	No	No	30' ELZ	N/A
A2	4	IV	>2ft	No	No	0-50'/100'	N/A
A3	4	IV	>2ft	No	No	0-50'/100'	N/A
A4	4	III	>2ft	No	No	0-50'/100'	N/A
A44	5	III	<2ft	No	No	30' ELZ	N/A
A4a	4	IV	>2ft	No	No	0-50'/100'	N/A
A5	4	IV	>2ft	No	No	0-50'/100'	N/A
A55	5	III	<2ft	No	No	30' ELZ	N/A
A5a	5	IV	<2ft	No	No	30' ELZ	N/A
A5b	5	IV	<2ft	No	No	30' ELZ	N/A
A6	4	III	>2ft	No	No	0-50'/100'	N/A
A66	5	III	<2ft	No	No	30' ELZ	N/A
A7	4	III	>2ft	No	No	0-50'/100'	N/A
A77	5	III	<2ft	No	No	30' ELZ	N/A
A7a	4	III	>2ft	No	No	0-50'/100'	N/A
A7aa	5	III	<2ft	No	No	30' ELZ	N/A
A7a1	5	III	<2ft	No	No	30' ELZ	N/A
A8	4	III	>2ft	No	No	0-50'/100'	N/A
A88	5	IV	<2ft	No	No	30' ELZ	N/A
A8a	5	IV	<2ft	No	No	30' ELZ	N/A
A9	4	III	>2ft	No	No	0-50'/100'	N/A
B	4	III	>2ft	No	No	0-50'/100'	N/A
B1	5	III	<2ft	No	No	30' ELZ	N/A
C	4	III	>2ft	No	No	0-50'/100'	N/A
CC	5	III	<2ft	No	No	30' ELZ	N/A

*Due to inner gorge, closest portion of buffer actually ~250'

DNR Trust Forestland HCP Water Typing Key

ADDENDUM TO INSTRUCTIONS FOR COMPLETING THE FOREST PRACTICE APPLICATION

STREAM(S) ID __A1, A1a, A1b, A2, A3, A4, A4a, A5, A6, A7, A7a, A8, A9, B, C__ DATE _06/09/2022_

Within your road construction and harvest area, you need to physically review these streams on the ground to determine if they meet the criteria of Type 3 water. Refer to DNR Trust Forestland HCP Water Typing System to determine Type 1 and 2 waters.

1. Were any fish observed in the stream segment, or are fish known to use this stream segment?
_____Yes. Type 3 stream.
__X__ No. Go to question # 2.

2. Has the stream been surveyed?
_____Yes. Attach the survey data to the Application/Notification.
____ Fish found. Type 3 stream.
____ No fish. Is the average width of the stream segment two feet (2') or wider between the ordinary high
water marks?

_____ Yes. Type 4 stream.
_____ No. Type 5 stream.
__X__ No. Go to question # 3.

3. Is the average width of the stream segment two feet (2') or wider between the ordinary high water marks?
__X__Yes. Go to question # 4.
_____No. Type 5 Stream.

4. Is the gradient of the stream segment 16% or less?
(Example: 16' fall in elevation over 100 feet of stream = 16/100= .16 or 16%).
_____Yes. Type 3 stream.
__X__ No. Go to question # 5.

5. Is the average gradient of the stream segment greater than 16% and less than or equal to 20%?
_____Yes. Go to question # 6.
__X__No.. Type 4 stream.

6. Is the contributing basin (watershed) size to the stream segment greater than 50 acres?
_____Yes. Type 3 stream.
_____No. . Type 4 stream.

Definitions:

Stream Width: To determine the Ordinary High Water Mark (OHWM) of the stream(s), observe the break between the water influence zone and upland vegetation on the stream bank; this is usually the spring high water mark. Then measure stream width between the OHWMs on either side of the stream at 50 feet intervals along the stream bank for a minimum distance of 500 feet. This determines the average width of the stream. For further information see page M-11 of the board manual.
Stream Gradient: The gradient of a stream is defined as the inclination or rate of fall of a stream bed, expressed as a percentage. The average gradient of a stream is determined by calculating the inclination of individual sub-reaches over a minimum distance of 500 feet along a stream or to a point where distinct gradient changes occur. For further information see page M-14 of the board manual (only use the method for field measurements; do not use the mapping method).

Note: Streams with widths of twenty feet (20') or greater or lakes, ponds, or impoundments having a surface area of 1 acre or greater at seasonal low water, may be type 2 waters. 1-14-08

DNR Trust Forestland HCP Water Typing Key

ADDENDUM TO INSTRUCTIONS FOR COMPLETING THE FOREST PRACTICE APPLICATION

STREAM(S) ID __A1aa, A1a1, A1c, A44, A55, A5a, A5b, A66, A77, A7aa, A7a1, A88, A8a, B1, CC__
DATE _06/09/2022_

Within your road construction and harvest area, you need to physically review these streams on the ground to determine if they meet the criteria of Type 3 water. Refer to DNR Trust Forestland HCP Water Typing System to determine Type 1 and 2 waters.

1. Were any fish observed in the stream segment, or are fish known to use this stream segment?
_____Yes. Type 3 stream.
__X__ No. Go to question # 2.

2. Has the stream been surveyed?
_____Yes. Attach the survey data to the Application/Notification.
____ Fish found. Type 3 stream.
____ No fish. Is the average width of the stream segment two feet (2') or wider between the ordinary high
water marks?

_____ Yes. Type 4 stream.
_____ No. Type 5 stream.

__X__ No. Go to question # 3.

3. Is the average width of the stream segment two feet (2') or wider between the ordinary high water marks?
_____Yes. Go to question # 4.
__X__No. Type 5 Stream.

4. Is the gradient of the stream segment 16% or less?
(Example: 16' fall in elevation over 100 feet of stream = 16/100= .16 or 16%).
_____Yes. Type 3 stream.
_____ No. Go to question # 5.

5. Is the average gradient of the stream segment greater than 16% and less than or equal to 20%?
_____Yes. Go to question # 6.
_____No.. Type 4 stream.

6. Is the contributing basin (watershed) size to the stream segment greater than 50 acres?
_____Yes. Type 3 stream.
_____No. . Type 4 stream.

Definitions:

Stream Width: To determine the Ordinary High Water Mark (OHWM) of the stream(s), observe the break between the water influence zone and upland vegetation on the stream bank; this is usually the spring high water mark. Then measure stream width between the OHWMs on either side of the stream at 50 feet intervals along the stream bank for a minimum distance of 500 feet. This determines the average width of the stream. For further information see page M-11 of the board manual.
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Note: Streams with widths of twenty feet (20') or greater or lakes, ponds, or impoundments having a surface area of 1 acre or greater at seasonal low water, may be type 2 waters. 1-14-08

Forest Practices Application/Notification Addendum
State Trust Lands Habitat Conservation Plan (HCP) Addendum Implementation Checklist for the Marbled Murrelet, 2019

OESF, Columbia, South Coast, South Puget, North Puget, and Straits HCP Planning Units

Refer to DNR's *State Trust Lands Final Habitat Conservation Plan Amendment for the Marbled Murrelet Long-term Conservation Strategy* (MM LTCS) (2019) and Memorandum for Phase One Implementation of the Marbled Murrelet Long-term Conservation Strategy (12/4/2019). The marbled murrelet GIS layer is available on the Quick Data Loader and State Uplands Viewing Tool and is titled "State Lands – Marbled Murrelet – HCP Policy."

1. Is the proposed Forest Practices activity within an occupied site?
   ☐ Yes, the proposal is inconsistent with the MM LTCS. Stop the proposed activity or document in Question #6 specifics of how the proposal follows MM LTCS guidance, as outlined in the Memorandum dated 12/04/2019, and provide approval from the Forest Resources Division.
   ☒ Not within an occupied site. Go to Question #2.

2. Is the proposed activity within an occupied site buffer?
   ☐ Yes, must follow MM LTCS guidance, as outlined in the Memorandum dated 12/04/2019, for the type for forest practices activity and document compliance with MM LTCS guidance in Question #6. If inconsistent with the MM LTCS, stop the proposed activity.
   ☒ Not within outer occupied site buffer. Go to Question #3.

3. Is the proposed activity within a special habitat area (SHA)?
   ☐ Yes, must follow MM LTCS guidance, as outlined in the Memorandum dated 12/04/2019, for the type for forest practices activity and document compliance with MM LTCS guidance in Question #6. If inconsistent with the MM LTCS, stop the proposed activity.
   ☒ Not within an SHA. Go to Question #4.

4. Is the proposed activity in marbled murrelet habitat within long-term forest cover?
   ☐ Yes, must follow MM LTCS guidance, as outlined in the Memorandum dated 12/04/2019, for the type of forest practices activity and document compliance with MM LTCS guidance in Question #6. If inconsistent with the MM LTCS, stop the proposed activity.
   ☒ Not within marbled murrelet habitat within long-term forest cover. Go to Question #5.

5. Is the proposed activity in marbled murrelet habitat that is identified for metering in the first decade of the implementation of the MM LTCS?
   ☐ Yes, must follow MM LTCS metering guidance, as outlined in the Memorandum dated 12/04/2019, for the type for forest practices activity. Document compliance with MM LTCS metering guidance in Question #6. If inconsistent with MM LTCS metering guidance, stop the proposed activity.
   ☒ Not within marbled murrelet habitat within long-term forest cover.

6. If directed to provide further documentation from any of the above questions, provide that information here. Additional information relevant to the proposal may also be added in this section. Also attach any documentation of consultations with the Forest Resources Division.

   Does not apply.

Forest Practices Application/Notification Addendum DNR
State Trust Lands HCP Implementation Checklist for the
Northern Spotted Owl, 2017 (all HCP planning units & OESF)

Refer to the DNR State Trust Lands HCP Implementation Agreement for the NSO, 2017.

1. Is the Forest Practice activity within a NRF Management Area?
   - ☐Yes, Go to #2.
   - ☒No, Go to #6.
2. Is the Forest Practice activity within a designated 500-acre Nest Patch?
   - ☐Yes, Harvesting within a nest patch is **inconsistent** with HCP without consultation, refer to Substitution Agreement, Section I.A. **Stop Proposed Activity** or document in Question #17 the specifics of proposal and Forest Resources Division concurrence if intending to proceed. Maintenance of existing roads is permitted, describe road maintenance activity in Question #17. If able to proceed, go to #3.
   - ☐No, Go to #3.
3. Is the Forest Practice activity within 0.7 miles of a spotted owl nest site (status 1 or 2)?
   - ☐Yes, Apply timing restrictions; refer to Substitution Agreement, Section I. Go to #4.
   - ☐No, Go to #4.
4. Is the SOMU where the Forest Practice activity is located above the target amount of 50% NRF habitat?
   - ☐Yes, Proceed with the activity, ensuring that habitat within the SOMU will not fall below the target amount of 50% and no more than 5% of sub-mature or better habitat within the SOMU is harvested within two years. Please describe in Question #17; if the activity will be harvesting habitat or non-habitat, whether it is an enhancement activity or even- age harvest and how many acres or percentage of NRF habitat will remain within the SOMU after harvest. Go to #16.
   - ☐No, Go to #5.
5. Is the Forest Practice activity within suitable sub-mature habitat or better or "next best"?
   - ☐Yes, Ensure NRF habitat remains after completion of the harvest activity or that the activity will not increase the length of time for the target amount to reach a suitable habitat condition. Please describe in Question #17, type of activity, how habitat will be maintained or next best stands enhanced and what the final stand condition will be. Go to #16.
   - ☐No, Ensure that target amount of habitat within the SOMU will not take longer to achieve after activity. Please describe in Question #17 how management activity will maintain and/or achieve the NRF target amount. Go to #16.
6. Is the Forest Practice activity within a Dispersal or DFC Management Area?
   - ☐Yes, Go to #7.
   - ☒No, Go to #10.
7. Is the Forest Practice activity within 0.7 miles of a spotted owl nest site (status 1 or 2)?
   - ☐Yes, Apply timing restrictions; refer to Substitution Agreement, Section I. Go to #8.
   - ☐No, Go to #8.
8. Is the SOMU where the Forest Practice activity is located, above the target amount of 50% dispersal habitat?
   - ☐Yes, Proceed with the activity, ensuring that habitat within the SOMU will not fall

below the target amount of 50%. Please describe in Question #17; if the activity will be harvesting habitat or non-habitat, whether it is an enhancement activity or even- age harvest and how many acres or percentage of dispersal habitat will remain within the SOMU after harvest. Go to #16.

☐No, Go to #9.

9. Is the Forest Practice activity within suitable dispersal habitat or better or "next best"?
   ☐Yes, Ensure dispersal habitat remains after completion of the harvest activity or that the activity will not increase the length of time for the target amount to reach a suitable habitat condition. Please describe in Question #17, type of activity, how habitat will be maintained or next best stands enhanced and what the final stand condition will be. Go to #16.
   ☐No, Ensure that target amount of habitat within the SOMU will not take longer to achieve after activity. Please describe in Question #17 how management activity will maintain and/or achieve the dispersal target amount. Go to #16.
10. Is the Forest Practice activity located within the OESF?
   ☐Yes, Go to #11.
   ☒No, Go to #16.
11. Is the Forest Practice Activity within Young Forest Habitat, Old Forest Habitat, or a Pathways Management Candidate Stand?
   ☐Yes, Go to #12.
   ☐No, Proceed with the activity, Please describe in Question #17; whether it is an enhancement activity or even-age harvest and how many acres. Describe percentage of suitable habitat will remain within the SOMU after harvest. Go to #16.
12. Is the Forest Practice activity in a SOMU in the maintenance and enhancement phase?
   ☐Yes, Activity can proceed if it ensures commitments to OESF Forest Land Plan as described within the Substitution Agreement, Section II and that habitat within the SOMU will not fall below the target amount. For Old Forest Habitat both the 20% Old Forest and 40% Young Forest and Better thresholds must be maintained. Active and Passive Pathways Management Candidate Stands are available if thresholds are maintained. Please describe in Question #17 how management activity will maintain habitat thresholds and how any candidate stands will be managed in accordance with the pathway prescription. Go to #16.
   ☐No, Go to # 13.
13. Is the Forest Practice activity in Old Forest Habitat in a SOMU that is in the Restoration Phase?
   ☐Yes, No harvesting of Old Forest Habitat is allowed during the Restoration Phase.
   ☐No, Go to #14.
14. Is the Forest Practice activity a regeneration harvest of Young Forest Habitat in a SOMU that is in the Restoration Phase?
   ☐Yes, No regeneration harvest of Young Forest Habitat in a SOMU during the Restoration Phase without consultation with the HCP and Scientific Consultation Section. Describe in #17 how many acres or percentage of suitable habitat will remain within the SOMU after harvest. Document the reasons for harvest of young forest habitat and provide documentation of approval. Go to #16.
   ☐No, Go to #15.

15. Is the Forest Practice activity in an Active or Passive Pathways Management Candidate Stand in a SOMU that is in the Restoration Phase?
    - ☐Yes, No harvesting of Passive Pathways Management Candidate Stand is allowed during the Restoration Phase. Active Pathways Management Candidate Stands can only have thinning activities. Please describe in Question # 17 how management activity will maintain habitat thresholds or how thinning activities will enhance habitat. Describe in #17 how many acres or percentage of suitable habitat will remain within the SOMU after harvest.
    - ☐No, Proceed with the activity, if commitments to the OESF Forest Land Plan as described within the Substitution Agreement and the SOMU are maintained and habitat does not fall below the minimum threshold. Please describe in Question # 17 how management activity will maintain habitat thresholds or how thinning activities will enhance habitat. Describe in #17 how many acres or percentage of suitable habitat will remain within the SOMU after harvest. Go to #16.
16. Is the Forest Practice activity located within a Status 1 or 2 spotted owl management circle based on the WDFW database?
    - ☐Yes, Apply harvest timing restrictions to activities within the best 70-acre core around the site center; refer to Substitution Agreement, Section III. Include location of best 70-acre core on Forest Practices Map. Go to #17.
    - ☒No, Go to #17.
17. Provide any additional information or details requested from previous questions on the following lines. If no additional information is required, simply state "not applicable" below. Otherwise, include the SOMU name(s) when necessary if activity is within NRF or dispersal management areas or OESF and how habitat will be maintained or enhanced, etc. If varying from standard HCP guidance, attach concurrence/variance approval from Land Management Division and/or Federal Services and discuss below.
    End checklist.

    Not applicable.

Forest Practices Application/Notification (FPA/N)

Revision

Date: 2/7/2023 **FPA/N:** 2818896

Application Revisions	Description
☐ FPA Page 1	
☐ FPA Page 2	
☐ FPA Page 3	
☐ FPA Page 4	
☒ FPA Page 5	Replaced. (Revised Silver Star Pit info.)
☐ FPA Page 6	
☐ FPA Page 7	
☐ FPA Page 8	

Associated Documents	Description
☐ Activity Map	
☐ Appendix A	
☐ Appendix D	
☐ Slope Stability Map	
☐ FPHP Plans/Specifications	
☒ Other	Office checklist - corrected legal and pit acreage

Additional Information/Comments:

Processed By: as

Forest Practices Application/Notification (FPA/N)

Revision

Date: 2/8/2023 **FPA/N:** 2818896

Application Revisions	Description
☐ FPA Page 1	
☐ FPA Page 2	
☐ FPA Page 3	
☐ FPA Page 4	
☐ FPA Page 5	
☐ FPA Page 6	
☐ FPA Page 7	
☐ FPA Page 8	

Associated Documents	Description
☐ Activity Map	
☐ Appendix A	
☐ Appendix D	
☐ Slope Stability Map	
☐ FPHP Plans/Specifications	
☒ Other	Replaced FPA Narrative and Appendix I, added Road Plan

Additional Information/Comments:

FPA Narrative revisions- addressed Hutchinson WAU ARS5 prescriptions.

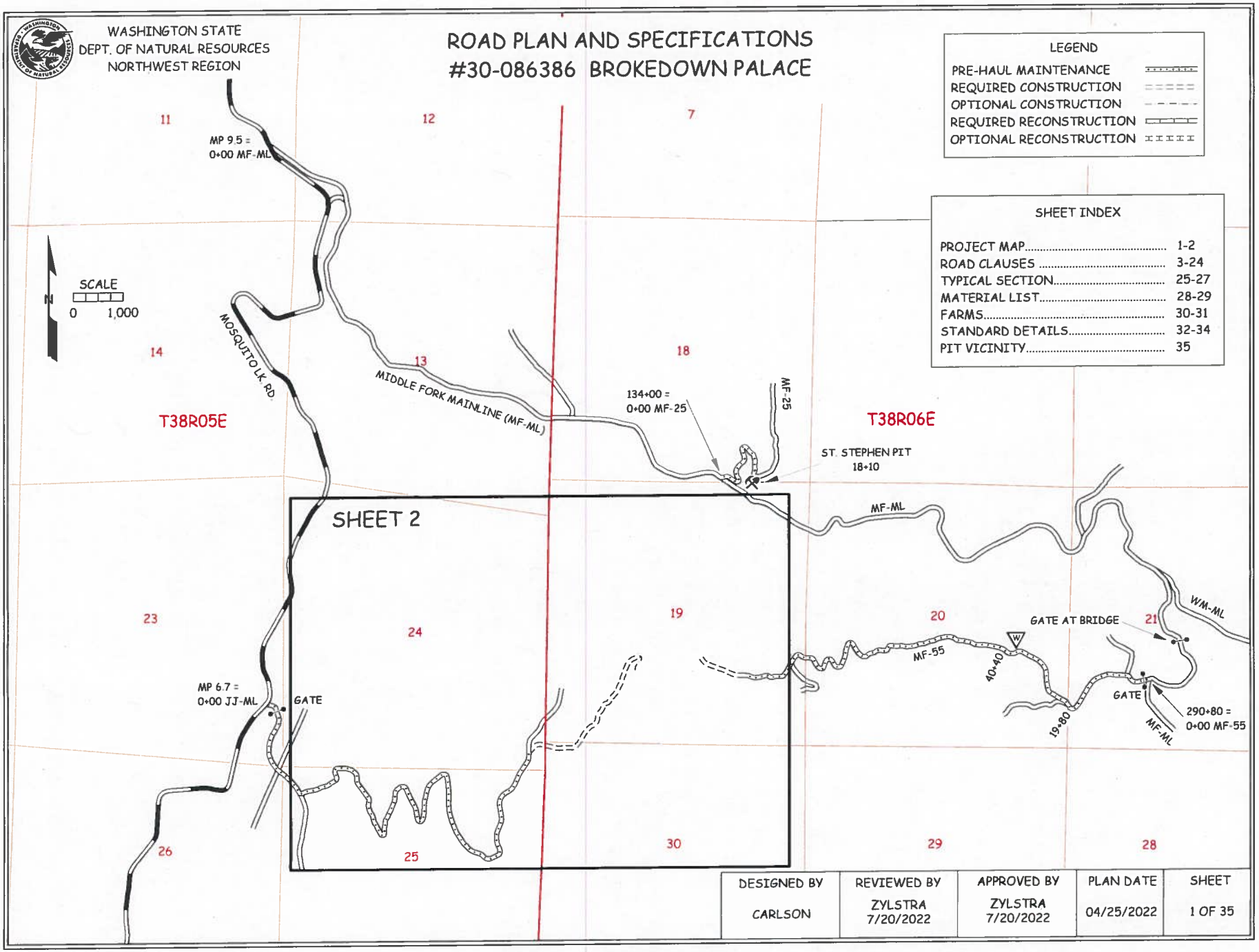
Appendix I. Watershed Analysis Worksheet revisions- provided additional verbiage for ARS4, ARS5, and ARS6.

Added Road Plan to address applicable prescriptions for Hutchinson WAU ARS5

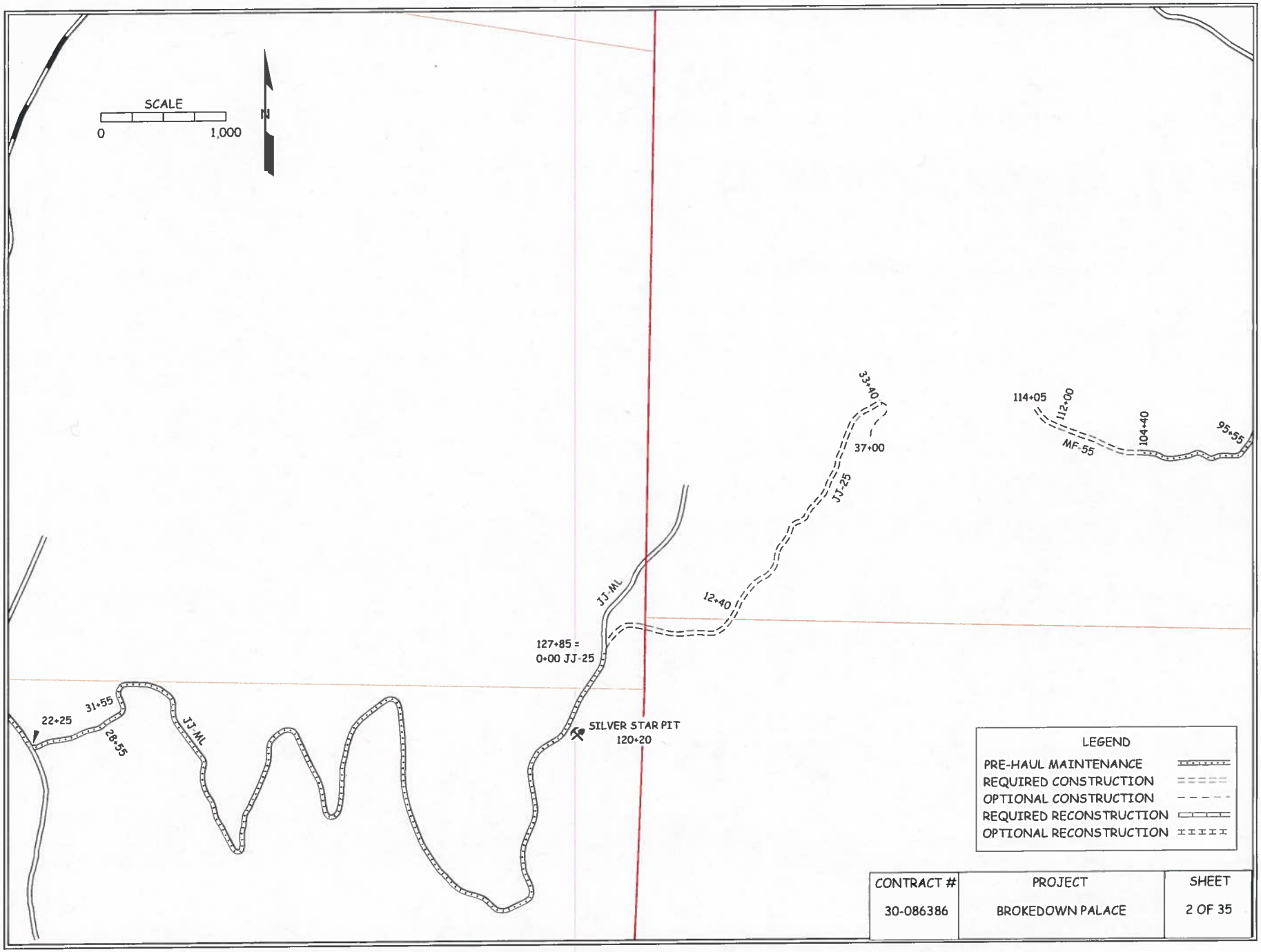
Processed By: bh

WASHINGTON STATE
DEPT. OF NATURAL RESOURCES
NORTHWEST REGION

ROAD PLAN AND SPECIFICATIONS
#30-086386 BROKEDOWN PALACE



DESIGNED BY	REVIEWED BY	APPROVED BY	PLAN DATE	SHEET
CARLSON	ZYLSTRA 7/20/2022	ZYLSTRA 7/20/2022	04/25/2022	1 OF 35



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

BROKEDOWN PALACE TIMBER SALE ROAD PLAN
WHATCOM COUNTY
BAKER DISTRICT
NORTHWEST REGION

AGREEMENT NO.: 30-086386 STAFF ENGINEER: CARLSON

DATE: Apr. 25, 2022

SECTION 0 – SCOPE OF PROJECT

0-1 ROAD PLAN SCOPE

Clauses in this road plan apply to all road related work, including landings and rock source development, unless otherwise noted.

0-2 REQUIRED ROADS

The specified work on the following roads is required.

Road	Stations	Type
MF-25	0+00 to 18+10	Pre-haul Maintenance
MF-55	0+00 to 104+40	Pre-haul Maintenance
MF-55*	104+40 to 114+05	Construction
JJ-ML	0+00 to 127+85	Pre-haul Maintenance
JJ-25*	0+00 to 33+40	Construction

* Portions of construction are on abandoned roads.

0-3 OPTIONAL ROADS

The specified work on the following roads is not required. Any optional roads built by the Purchaser must meet all the specifications in the road plan.

Road	Stations	Type
JJ-25	33+40 to 37+00	Construction

0-4 CONSTRUCTION

Construction includes, but is not limited to clearing, grubbing, excavation and embankment to sub-grade, landing and turnout construction, culvert installation, and application of 3-inch-minus ballast rock.

0-6 PRE-HAUL MAINTENANCE

This project includes, but is not limited to the following pre-haul maintenance requirements:

Blading, shaping, and ditching of the road prism to dimensions shown in the TYPICAL SECTION and Brushing to the specifications in the Brushing Detail and Clause 3-1, are required of all pre-haul maintenance road segments in addition to the requirements listed below.

Road	Stations	Requirements
MF-55	0+00 to 19+80	Cleaning culverts, ditches, headwalls, and catch basins.
MF-55	19+80 to 40+40	Cleaning culverts, ditches, headwalls, and catch basins. Application of 3-inch minus ballast rock.
MF-55	40+40 to 95+55	Cleaning culverts, ditches, headwalls, and catch basins.
MF-55	95+55 to 104+40	Cleaning culverts, ditches, headwalls, and catch basins. Application of 3-inch minus ballast rock.
JJ-ML	22+25 to 28+55	Cleaning culverts, ditches, headwalls, and catch basins. Application of 2-inch minus crushed rock.
JJ-ML	28+55 to 31+55	Cleaning culverts, ditches, headwalls, and catch basins. Application of 3-inch minus ballast rock. Application of 2-inch minus crushed rock.
JJ-ML	31+55 to 127+85	Cleaning culverts, ditches, headwalls, and catch basins. Application of 2-inch minus crushed rock.

0-7 POST-HAUL MAINTENANCE

This project includes post-haul road maintenance listed in Clause 9-5 POST-HAUL MAINTENANCE.

0-10 ABANDONMENT

This project includes abandonment listed in Clause 9-21 ROAD ABANDONMENT.

0-12 DEVELOP ROCK SOURCE

Purchaser may develop existing rock sources. Rock source development will involve drilling, shooting, and processing rock to generate riprap and 3-inch-minus ballast rock. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

SECTION 1 – GENERAL

1-1 ROAD PLAN CHANGES

If the Purchaser desires a change from this road plan including, but not limited to, relocation, extension, change in design, or adding roads; a revised road plan must be submitted in writing to the Contract Administrator for consideration. Before work begins, Purchaser shall obtain approval from the State for the submitted plan.

1-2 UNFORESEEN CONDITIONS

Quantities established in this road plan are minimum acceptable values. Additional quantities required by the state due to unforeseen conditions, or Purchaser's choice of construction season or techniques will be at the Purchaser's expense. Unforeseen conditions include, but are not limited to, solid subsurface rock, subsurface springs, saturated ground, and unstable soils.

1-3 ROAD DIMENSIONS

Purchaser shall perform road work in accordance with the dimensions shown on the TYPICAL SECTION SHEET and the specifications within this road plan, unless controlled by construction stakes.

1-4 ROAD TOLERANCES

Purchaser shall perform road work within the tolerances listed below. The tolerance class for each road is listed on the TYPICAL SECTION SHEET.

Tolerance Class	A	B	C
Road and Subgrade Width (feet)	+1.5	+1.5	+2.0
Subgrade Elevation (feet +/-)	0.5	1.0	2.0
Centerline alignment (feet lt./rt.)	1.0	1.5	3.0

1-6 ORDER OF PRECEDENCE

Any conflict or inconsistency in the road plan will be resolved by giving the documents precedence in the following order:

1. Addenda.
2. Road Plan Clauses.
3. Typical Section Sheet.
4. Standard Lists.
5. Standard Details.

In case of any ambiguity or dispute over interpreting the road plan, the Contract Administrator's or designee's decision will be final.

1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS

Purchaser shall repair or replace all materials, roadway infrastructure, and road components damaged during road work or operation activities. The Contract Administrator will direct repairs and replacements. Repairs to structural materials must be made in accordance with the manufacturer's recommendation, and may not begin without written approval from the Contract Administrator.

1-9 DAMAGED METALLIC COATING

Any cut ends, or damaged galvanized or aluminized coating on existing or new bridge components, culverts, downspouts, and flumes must be cleaned and treated with a minimum of two coats of zinc rich paint or cold galvanizing compound.

1-18 REFERENCE POINT DAMAGE

Purchaser shall reset reference points (RPs) that were moved or damaged at any time during construction to their original locations. Excavation and embankment may not proceed on road segments controlled by said RPs until Purchaser resets all moved or damaged RPs.

1-21 HAUL APPROVAL

Purchaser shall not use roads under this road plan for any hauling other than timber cut on the right-of-way, without written approval from the Contract Administrator.

1-23 ROAD WORK PHASE APPROVAL

Purchaser shall obtain written approval from the Contract Administrator upon completion of each of the following phases of road work, if applicable:

- Right-of-way
  - Falling/decking
  - Clearing/grubbing
- Subgrade Construction
  - Excavation and embankment to subgrade
  - Culvert installation
  - Ditch construction
  - Subgrade compaction
- Rock application
  - Rock compaction
  - Rock depth
- Erosion and sediment control
- Revegetation
- Abandonment

2818896
Received 2/8/2023

1-25 ACTIVITY TIMING RESTRICTION

The specified activities are not allowed during the listed closure periods unless authorized in writing by the State.

Activity	Closure Period
All Activities	November 1 to March 31

1-26 OPERATING DURING CLOSURE PERIOD

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTION, Purchaser shall provide a maintenance plan to include further protection of state resources. Purchaser shall obtain written approval from the Contract Administrator for the maintenance plan, and shall put preventative measures in place before operating during the closure period. Purchaser is required to maintain all haul roads at their own expense including those listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER. If other operators are using, or desire to use these designated maintainer roads, a joint operating plan must be developed. All parties shall follow this plan.

1-29 SEDIMENT RESTRICTION

Purchaser shall not allow silt-bearing runoff to enter any streams.

1-30 CLOSURE TO PREVENT DAMAGE

In accordance with Contract Clause G-220 STATE SUSPENDS OPERATION, the Contract Administrator will suspend road work or hauling right-of-way timber, forest products, or rock under the following conditions:

- Wheel track rutting exceeds 6 inches on roads.
- Surface or base stability problems persist.
- Weather is such that satisfactory results cannot be obtained in an area of operations.
- When, in the opinion of the Contract Administrator excessive road damage or rutting may occur.

Operations must stop unless authority to continue working or hauling is granted in writing by the Contract Administrator. In the event that surface or base stability problems persist, Purchaser shall cease operations, or perform corrective maintenance or repairs, subject to specifications within this road plan. Before and during any suspension, Purchaser shall protect the work from damage or deterioration.

1-33 SNOW PLOWING RESTRICTION

Snowplowing will be allowed after the execution of a SNOW PLOWING AGREEMENT, which is available from the Contact Administrator upon request. If damage occurs while plowing, further permission to plow may be revoked by the Contract Administrator.

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1-40 ROAD APPROACHES TO COUNTY ROADS AND STATE HIGHWAYS

Purchaser shall immediately remove any mud, dirt, rock, or other material tracked or spilled on to county roads and state highways.

If additional damage to the surface, signs, guardrails, etc. occurs then the damage will be repaired, at the Purchaser's expense, as directed by the Contract Administrator when authorized by the county or WSDOT.

SECTION 2 – MAINTENANCE

2-1 GENERAL ROAD MAINTENANCE

Purchaser shall maintain all roads used under this contract in accordance with the FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS for the entire term of this contract. Maintenance is required even during periods of inactivity.

2-2 ROAD MAINTENANCE – PURCHASER MAINTENANCE

Purchaser shall perform maintenance on roads listed in Contract Clause C-050 PURCHASER ROAD MAINTENANCE AND REPAIR in accordance with FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

2-3 ROAD MAINTENANCE – DESIGNATED MAINTAINER

Purchaser may be required to perform maintenance on roads listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER as directed by the Contract Administrator. Purchaser shall maintain roads in accordance with FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

2-5 MAINTENANCE GRADING – EXISTING ROAD

On the following roads, Purchaser shall use a grader to shape the existing surface before any hauling. Purchaser shall accomplish all grading using a motor grader with a minimum of 175 horsepower.

Road	Stations
MF-25	0+00 to 18+10 see Clause 0-6 PRE-HAUL MAINTENANCE
MF-55	0+00 to 104+40 see Clause 0-6 PRE-HAUL MAINTENANCE
JJ-ML	0+00 to 127+85 see Clause 0-6 PRE-HAUL MAINTENANCE

2-6 CLEANING CULVERTS

On the following roads, Purchaser shall clean the inlets and outlets of all culverts and shall obtain written approval from the Contract Administrator before any hauling.

Road	Stations
MF-55	0+00 to 104+40
JJ-ML	22+25 to 127+85

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

On the following roads, Purchaser shall clean ditches, headwalls, and catchbasins. Work must be completed before any hauling and must be done in accordance with the TYPICAL SECTION.

Road	Stations
MF-55	0+00 to 104+40
JJ-ML	22+25 to 127+85

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-1 BRUSHING

On the following road, Purchaser shall cut vegetative material up to 6 inches in diameter, including limbs, as shown on the BRUSHING DETAIL. Brushing must be achieved by mechanical cutting of brush, trees, and branches. Root systems and stumps of cut vegetation may not be disturbed unless directed by the Contract Administrator. Purchaser shall remove brushing debris from the road surface, ditchlines, and culvert inlets and outlets.

Road	Stations
MF-25	0+00 to 18+10
MF-55	0+00 to 104+40
JJ-ML	0+00 to 127+85

3-5 CLEARING

Purchaser shall fall all vegetative material larger than 2 inches DBH or over 5 feet high between the marked right-of-way boundaries or if not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

3-8 PROHIBITED DECKING AREAS

Purchaser shall not deck right-of-way timber in the following areas:

- Within the grubbing limits.
- Within 50 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 50%.
- Against standing trees
- Against marked leave trees.

3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Purchaser shall also remove stumps with undercut roots outside the grubbing limits. Grubbing must be completed before starting excavation and embankment.

3-20 ORGANIC DEBRIS DEFINITION

Organic debris is defined as all vegetative material not eligible for removal by Contract Clause G-010 PRODUCTS SOLD AND SALE AREA or G-011 RIGHT TO REMOVE FOREST PRODUCTS AND CONTRACT AREA, that is larger than one cubic foot in volume within the clearing limits as shown on the TYPICAL SECTION SHEET.

3-21 DISPOSAL COMPLETION

Purchaser shall remove organic debris from the road surface, ditchlines, and culvert inlets and outlets. Purchaser shall complete all disposal of organic debris before the application of rock.

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

Waste areas for organic debris are located within the cleared right-of-way or in natural openings as designated at areas approved in writing by the Contract Administrator.

3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream, or wetland
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 50%.
- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush can fall into the ditch or onto the road surface.
- Against standing timber.

3-24 BURYING ORGANIC DEBRIS RESTRICTED

Purchaser shall not bury organic debris unless otherwise stated in this plan.

3-25 SCATTERING ORGANIC DEBRIS

Purchaser shall scatter organic debris outside of the clearing limits in natural openings unless otherwise detailed in this road plan.

SECTION 4 – EXCAVATION

4-1 EXCAVATOR CONSTRUCTION

Purchaser shall use a track mounted hydraulic excavator for construction work, unless authorized in writing by the Contract Administrator.

4-2 PIONEERING

Pioneering may not extend past construction that will be completed during the current construction season. Pioneering may not extend more than 500 feet beyond completed construction unless approved in writing by the Contract Administrator. In addition, the following actions must be taken as pioneering progresses:

- Drainage must be provided on all uncompleted construction.
- Road pioneering operations may not undercut the final cut slope or restrict drainage.
- Culverts at live stream crossings must be installed during pioneering operations prior to embankment.

4-3 ROAD GRADE AND ALIGNMENT STANDARDS

Purchaser shall follow these standards for road grade and alignment except as designed:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 18 percent favorable and 12 percent adverse.
- Minimum curve radius is 50 feet at centerline.
- Maximum grade change for sag vertical curves is 5% in 100 feet.
- Maximum grade change for crest vertical curves is 4% in 100 feet.

4-4 SWITCHBACK STANDARDS

A switchback is defined as a curved segment of road between a beginning and end of the same curve, where the change of traffic travel direction is greater than 90 degrees. Purchaser shall follow these standards for switchbacks:

- Maximum adverse grades for switchbacks is 12%.
- Maximum transition grades entering and leaving switchbacks is a 5% grade change.
- Transition grades required to meet switchback grade limitations must be constructed on the tangents preceding and departing from the switchbacks.

4-5 CUT SLOPE RATIO

Purchaser shall construct excavation slopes no steeper than shown on the following table:

Material Type	Excavation Slope Ratio	Excavation Slope Percent
Common Earth (on side slopes up to 55%)	1:1	100
Common Earth (56% to 70% side slopes)	¾:1	133
Common Earth (on slopes over 70%)	½:1	200
Fractured or loose rock	½:1	200
Hardpan or solid rock	¼:1	400

4-6 EMBANKMENT SLOPE RATIO

Purchaser shall construct embankment slopes no steeper than shown on the following table:

Material Type	Embankment Slope Ratio	Embankment Slope Percent
Sandy Soils	2:1	50
Common Earth and Rounded Gravel	1½:1	67
Angular Rock	1¼:1	80

4-7 SHAPING CUT AND FILL SLOPE

Purchaser shall construct excavation and embankment slopes to a uniform line and left rough for easier revegetation.

4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

- 6 feet for curves of 50 to 79 feet radius.
- 4 feet for curves of 80 to 100 feet radius.

4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

- 2 feet for embankment heights at centerline of 2 to 6 feet.
- 4 feet for embankment heights at centerline of greater than 6 feet.

Purchaser shall apply embankment widening equally to both sides of the road to achieve the required width.

4-21 TURNOUTS

Purchaser shall construct turnouts intervisible with a maximum distance of 1,000 feet between turnouts unless otherwise shown on drawings. Locations may be adjusted to fit the final subgrade alignment and sight distances. Locations are subject to written approval by the Contract Administrator. Minimum dimensions are shown on the TYPICAL SECTION SHEET.

4-22 TURNAROUNDS

Purchaser shall construct turnarounds as shown on the TURNAROUND DETAIL. Turnaround type and location are subject to written approval by the Contract Administrator.

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

Purchaser shall construct ditches into the subgrade as specified on the TYPICAL SECTION SHEET. Ditches must be constructed concurrently with construction of the subgrade.

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

4-29 DITCHOUTS

Purchaser shall construct ditchouts as needed and as directed by the Contract Administrator. Ditchouts must be constructed in a manner that diverts ditch water onto the forest floor and must have excavation backslopes no steeper than a 1:1 ratio.

4-35 WASTE MATERIAL DEFINITION

Waste material is defined as all dirt, rock, mud, or related material that is extraneous or unsuitable for construction material. Waste material, as used in Section 4 EXCAVATION, is not organic debris.

4-36 DISPOSAL OF WASTE MATERIAL

Purchaser may sidecast waste material on side slopes up to 60% if the waste material is compacted and free of organic debris. On side slopes greater than 60%, all waste material must be end hauled or pushed to the designated embankment sites and waste areas identified in Clause 4-37 WASTE AREA LOCATION.

4-37 WASTE AREA LOCATION

Purchaser shall deposit waste material in areas identified or approved by the Contract Administrator. The amount of material allowed in a waste area is at the discretion of the Contract Administrator.

4-38 PROHIBITED WASTE DISPOSAL AREAS

Purchaser shall not deposit waste material in the following areas, except as otherwise specified in this plan:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream or wetland.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Against standing timber.
- Outside the clearing limits.

4-55 ROAD SHAPING

Purchaser shall shape the subgrade and surface as shown on the TYPICAL SECTION SHEET. The subgrade and surface shape must ensure runoff in an even, un-concentrated manner, and must be uniform, firm, and rut-free.

4-60 FILL COMPACTION

Purchaser shall compact all embankment and waste material by routing equipment over the entire width of each lift.

4-61 SUBGRADE COMPACTION

Purchaser shall compact constructed and reconstructed subgrades by routing equipment over the entire width.

SECTION 5 – DRAINAGE

5-5 CULVERTS

Purchaser shall install culverts as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on MATERIALS LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts may be new or used material and must meet the specifications in Clauses 10-15 through 10-24.

5-7 USED CULVERT MATERIAL

On the following road, Purchaser may install used culverts. All other roads must have new culverts installed. Purchaser shall obtain approval from the Contract Administrator for the quality of the used culverts before installation. Culverts must meet the specifications in Clauses 10-15 through 10-24.

Road
MF-55

5-12 UNUSED MATERIALS STATE PROPERTY

On required roads, any materials listed on the MATERIALS LIST that are not installed will become the property of the state. Purchaser shall stockpile materials as directed by the Contract Administrator.

5-15 CULVERT INSTALLATION

Culvert installation must be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL and the National Corrugated Metal Pipe Association's "Installation Manual for Corrugated Steel Drainage Structures" the Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings". Corrugated Polyethylene pipe must be installed in a manner consistent with the manufacturer's recommendations.

5-17 CROSS DRAIN SKEW AND SLOPE

Cross drains, on road grades in excess of 3%, must be skewed at least 30 degrees from perpendicular to the road centerline, except where the cross drain is at the low point in the road culverts will not be skewed. Cross drain culverts must be installed at a slope steeper than the incoming ditch grade, but not less than 3% or more than 10%.

5-18 CULVERT DEPTH OF COVER

Cross drain culverts must be installed with a depth of cover of not less than 1 foot of compacted subgrade over the top of the culvert at the shallowest point. Stream crossing culverts must be installed with a depth of cover recommended by the culvert manufacturer for the type and size of the pipe.

5-20 ENERGY DISSIPATERS

Purchaser shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts, Energy dissipater installation is subject to approval by the Contract Administrator.

Rock used for energy dissipaters must be light/loose riprap. Energy dissipaters must extend a minimum of 1 foot to each side of the culvert at the outlet and a minimum of 2 feet beyond the outlet. Rock must be set in place by machine. Placement must be by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed. Rock type shall meet the specifications in Clause 6-50 LIGHT LOOSE RIP RAP.

5-25 CATCH BASINS

Purchaser shall construct catch basins in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions of catch basins are 2 feet wide and 4 feet long.

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Purchaser shall construct headwalls in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts. Rock used for headwalls must weigh at least 50 pounds. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. Rock may not restrict the flow of water into culvert inlets or catch basins. No placement by end dumping or dropping of rock is allowed.

5-27 ARMORING FOR STREAM CROSSING CULVERTS

At stream crossing culverts, Purchaser shall place riprap in conjunction with construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the MATERIALS LIST or as directed by the Contract Administrator. Rock may not restrict the flow of water into culvert inlets or catch basins. Placement must be by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed.

SECTION 6 – ROCK AND SURFACING

6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from the following source on state land at no charge to the Purchaser. Purchaser shall obtain written approval from the Contract Administrator for the use of material from any other source. If other operators are using, or desire to use the rock source, a joint operating plan must be developed. All parties shall follow this plan.

Source	Location	Rock Type
Saint Stephen Pit	Sta. 18+09 of the MF-25	3-inch-minus ballast rock, riprap
Silver Star Pit	Sta. 120+20 of the JJ-ML	Shot rock, riprap
McCoy Pit	Sta. 22+50 of the MM-22	2-inch-minus crushed rock, riprap

6-3 ROCK SOURCE STATE LAND, EXISTING STOCKPILE

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from the following existing stockpile on state land at no charge to the Purchaser.

Source	Location	Rock Gradation Type
McCoy Pit	Sta. 22+50 of the MM-22 road.	2-inch minus crushed rock

6-5 ROCK FROM COMMERCIAL SOURCE

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from any commercial source at the Purchaser's expense. Rock sources are subject to written approval by the Contract Administrator before their use.

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6-10 ROCK SOURCE DEVELOPMENT PLAN BY STATE

Purchaser shall conduct rock source development and use at the following sources, in accordance with the written ROCK SOURCE DEVELOPMENT PLAN prepared by the state and included in this road plan. Upon completion of operations, the rock source must be left in the condition specified in the ROCK SOURCE DEVELOPMENT PLAN, and approved in writing by the Contract Administrator.

Source
Saint Stephen Pit
Silver Star Pit
McCoy Pit

6-12 ROCK SOURCE SPECIFICATIONS

Rock sources must be in accordance with the following specifications:

- Pit walls may not be undermined or over steepened. The maximum slope of the walls must be consistent with recognized engineering standards for the type of material being excavated in accordance with the following table:

Material	Maximum Slope Ratio (Horiz. :Vert.)	Maximum Slope Percent
Sand	2:1	50
Gravel	1.5:1	67
Common Earth	1:1	100
Fractured Rock	0.5:1	200
Solid Rock	0:1	vertical

- Pit walls must be maintained in a condition to minimize the possibility of the walls sliding or failing.
- The width of pit benches must be a minimum of 1.5 times the maximum length of the largest machine used.
- The surface of pit floors and benches must be uniform and free-draining at a minimum 2% outslope gradient.
- All operations must be carried out in compliance with all regulations of the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration and Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.
- All vehicle access to the top of the pit faces must be blocked.

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6-23 ROCK GRADATION TYPES

Purchaser shall provide rock in accordance with the types and amounts listed in the TYPICAL SECTION and MATERIALS LIST. Rock must meet the following specifications for gradation and uniform quality when placed in hauling vehicles or during manufacture and placement into a stockpile. The exact point of evaluation for conformance to specifications will be determined by the Contract Administrator.

6-34 3-INCH MINUS BALLAST ROCK

Ballast rock must be 100% equal to, or smaller than, 3 inches in at least one dimension.

Rock may contain no more than 5 percent organic debris, dirt, and trash. All percentages are by weight.

6-42 SHOT ROCK

No more than 50 percent of the rock may be less than 6 inches in any dimension and no rock may be larger than 24 inches in any dimension. Shot rock may not contain more than 5 percent by weight of organic debris, dirt, and trash. Rock may require processing to meet this specification.

6-50 LIGHT LOOSE RIP RAP

Rip rap must consist of angular, hard, sound, and durable stone. It must be free from segregation, seams, cracks, and other defects. Light loose rip rap must be free of rock fines, soil, organic debris or other extraneous material, and must meet the following requirements:

At Least/Not More Than	Weight Range
20% / 90%	300 lbs. to 1 ton
80% / --	50 lbs. to ½ ton
10% / 20%	50 lbs. max

6-51 HEAVY LOOSE RIP RAP

Rip rap must consist of angular, hard, sound, and durable stone. It must be free from segregation, seams, cracks, and other defects. Heavy loose riprap must be free of rock fines, soil, organic debris or other extraneous material, and must meet the following requirements:

At Least/Not More Than	Weight Range
30% / 90%	1 ton to 3 ton
70% / 90%	500 lbs. to 1 ½ ton
10% / 30%	50 lbs. max

6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

Measurement of specified rock depths, are defined as the compacted depths using the compaction methods required in this road plan. Estimated quantities specified in the TYPICAL SECTION are loose yards. Purchaser shall apply adequate amounts of rock to meet the specified rock depths. Specified rock depths are minimum requirements, and are not subject to reduction.

6-70 APPROVAL BEFORE ROCK APPLICATION

Purchaser shall obtain written approval from the Contract Administrator for culvert installation, ditch construction, ditch reconstruction, headwall construction, and headwall reconstruction before rock application.

6-71 ROCK APPLICATION

Purchaser shall apply rock in accordance with the specifications and quantities shown on the TYPICAL SECTION. Rock must be spread, shaped, and compacted full width concurrent with rock hauling operations. The Contract Administrator will direct locations for rock that is to be applied as spot patching. Road surfaces must be compacted in accordance with the TYPICAL SECTION by routing equipment over the entire width.

6-73 ROCK FOR WIDENED PORTIONS

Purchaser shall apply rock to turnarounds, turnouts, and areas with curve widening to the same depth and specifications as the traveled way.

SECTION 8 – EROSION CONTROL

8-2 PROTECTION FOR EXPOSED SOIL

Purchaser shall provide and evenly spread a 4-inch layer of straw to all exposed soils within 50 feet of a stream or wetland. Soils must be covered before the first anticipated storm event.

8-15 REVEGETATION

Purchaser shall spread seed and fertilizer on all exposed soils within the grubbing limits resulting from road work activities. Cover all exposed soils using manual dispersal of grass seed and fertilizer. Other methods of covering must be approved in writing by the Contract Administrator.

8-16 REVEGETATION SUPPLY

The Purchaser shall provide the required grass seed and fertilizer.

8-17 REVEGETATION TIMING

Purchaser shall revegetate during the first available opportunity after road work is completed. Soils may not be allowed to sit exposed for longer than one month without receiving revegetation treatment unless otherwise approved in writing by the Contract Administrator.

8-18 PROTECTION FOR SEED

Purchaser shall provide a protective cover for seed if revegetation occurs between July 1 and March 31. The protective cover may consist of dispersed straw, jute matting, or clear plastic sheets. The protective cover requirement may be waived in writing by the Contract Administrator if Purchaser is able to demonstrate a revegetation plan that will result in the establishment of a uniform dense crop (at least 50% coverage) of 3-inch tall grass by October 31.

8-19 ASSURANCE FOR SEEDED AREA

Purchaser shall ensure the growth of a uniform and dense crop (at least 50% coverage) of 3-inch tall grass. Purchaser shall reapply the grass seed and fertilizer in areas that have failed to germinate or have been damaged through any cause. Restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the seed and fertilizer at no addition cost to the state.

8-25 GRASS SEED

Purchaser shall evenly spread the seed mixture listed below on all exposed soil inside the grubbing limits at a rate of 50 pounds per acre of exposed soil. Grass seed must meet the following specifications:

1. Weed seed may not exceed 0.5% by weight.
2. All seed species must have a minimum 90% germination rate, unless otherwise specified.
3. Seed must be certified.
4. Seed must be furnished in standard containers showing the following information:
    a. Common name of seed
    b. Net weight
    c. Percent of purity
    d. Percentage of germination
    e. Percentage of weed seed and inert material
5. Seed must conform to the following mixture.

Kind and Variety of Seed in Mixture	% by Weight
Creeping Red Fescue	50
Elf Perennial Rye Grass	25
Highland Colonial Bentgrass	15
White Clover	10
Inert and Other Crop	0.5

8-27 FERTILIZER

Purchaser shall evenly spread the fertilizer listed below on all exposed soil inside the grubbing limits at a rate of 200 pounds per acre of exposed soil. Fertilizer must meet the following specifications:

Chemical Component	% by Weight
Nitrogen	16
Phosphorous	16
Potassium	16
Sulphur	3
Inerts	49

SECTION 9 – POST-HAUL ROAD WORK

9-3 CULVERT MATERIAL REMOVED FROM STATE LAND

Culverts removed from roads become the property of the Purchaser and must be removed from state land.

9-5 POST-HAUL MAINTENANCE

Purchaser shall perform post-haul maintenance in accordance with the FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

9-12 LANDING EMBANKMENT REMOVAL

Purchaser shall reduce or relocate the landing embankment. Place excavated material in a waste area approved in writing by the Contract Administrator.

9-21 ROAD ABANDONMENT

Purchaser shall abandon the following before the termination of this contract:

Road	Stations
MF-55	104+40 to 114+05

9-22 ABANDONMENT

- Remove all ditch relief culverts. The resulting slopes must be 1:1 or flatter. Place and compact the removed fill material in a location that will not erode into any Type 1 through 5 waters or wetlands.
- Remove all culverts in natural drainages. The resulting slopes must be 1 ½ :1 or flatter. Strive to match the existing native stream bank gradient. The natural streambed width must be re-established. Place and compact the removed fill material in a location that will not erode into any Type 1 through 5 waters or wetlands.
- Transport all removed culverts off site. All removed culverts are the property of the Purchaser.
- Construct non-drivable waterbars at natural drainage points and at a spacing that will produce a vertical drop of no more than 20 feet between waterbars and with a maximum horizontal spacing of 400 feet.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Key waterbars into the cut-slope to intercept the ditch. Waterbars must be outsloped to provide positive drainage. Outlets must be on stable locations.
- Inslope or outslope the road as appropriate.
- Remove bridges and other structures.
- Pull back unstable fill that has potential of failing and entering any Type 1 through 5 waters or wetlands. Place and compact removed material in a stable location.
- Remove berms except as designed.
- Block the road by constructing an aggressive barrier of dense interlocked large woody debris (logs, stumps, root wads, etc.) so that four wheel highway vehicles cannot pass the point of abandonment. Typical barrier dimensions are 10 feet high by 20 feet deep, spanning the entire road prism from top of cutslope to toe of fillslope. Long term effectiveness is the primary objective. If necessary construct a vehicular turn-around near the point of abandonment.
- Apply grass seed to all exposed soils resulting from the abandonment work and in accordance with Section 8 EROSION CONTROL.

10-15 CORRUGATED STEEL CULVERT

Metallic coated steel culverts must meet AASHTO M-36 (ASTM A-760) specifications. Culverts must be galvanized (zinc coated meeting AASHTO M-218).

10-17 CORRUGATED PLASTIC CULVERT

Polyethylene culverts must meet AASHTO M-294 specifications, or ASTM F-2648 specifications for recycled polyethylene. Culverts must be Type S – double walled with a corrugated exterior and smooth interior.

10-21 METAL BAND

Metal coupling and end bands must meet the AASHTO specification designated for the culvert and must have matching corrugations. Culverts 24 inches and smaller must have bands with a minimum width of 12 inches. Culverts over 24 inches must have bands with a minimum width of 24 inches.

10-22 PLASTIC BAND

Plastic coupling and end bands must meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer may be used.

10-23 RUBBER CULVERT GASKETS

Rubber gaskets must be continuous closed cell, synthetic expanded rubber gaskets conforming to the requirements of ASTM D 1056. Rubber gaskets must be used with all corrugated metal pipe coupling bands.

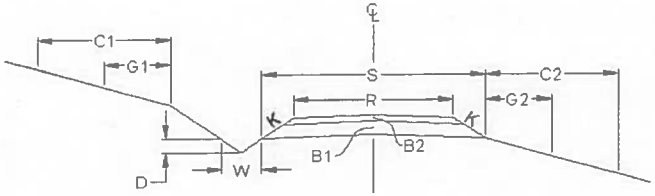
10-24 GAUGE AND CORRUGATION

Metal culverts must conform to the following specifications for gage and corrugation as a function of diameter.

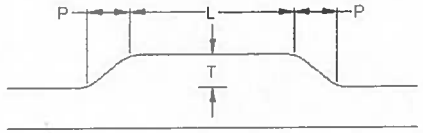
Diameter	Gage	Corrugation
18"	16 (0.064")	$2\ ^{2}/_{3}$" X $^{1}/_{2}$"
24" to 48"	14 (0.079")	$2\ ^{2}/_{3}$" X $^{1}/_{2}$"
54" to 96"	14 (0.079")	3" X 1"

ROAD #		MF-25	MF-55	MF-55	MF-55
REQUIRED / OPTIONAL		REQUIRED	REQUIRED	REQUIRED	REQUIRED
CONSTRUCT / RECONSTRUCT		PRE-HAUL	PRE-HAUL	PRE-HAUL	PRE-HAUL
TOLERANCE CLASS (A/B/C)		A	A	A	A
STATION / MP TO		0+00	0+00	19+80	40+40
STATION / MP		18+10	19+80	40+40	95+55
ROAD WIDTH	R	12	12	12	12
CROWN (INCHES @ C/L)		3	3	3	3
DITCH WIDTH	W	3	3	3	3
DITCH DEPTH	D	1	1	1	1
TURNOUT LENGTH	L	50	50	50	50
TURNOUT WIDTH	T	10	10	10	10
TURNOUT TAPER	P	25	25	25	25
GRUBBING	G1	--	--	--	--
	G2	--	--	--	--
CLEARING	C1	--	--	--	--
	C2	--	--	--	--
ROCK FILLSLOPE	K:1	--	--	--	--
❖ BALLAST DEPTH	B1	--	--	6	--
CUBIC YARDS / STATION		--	--	34	--
➢ TOTAL CY BALLAST		--	--	700 A	--
❖ SURFACING DEPTH	B2	--	--	--	--
CUBIC YARDS / STATION		--	--	--	--
➢ TOTAL CY SURFACING		--	--	--	--
➢ TOTAL CUBIC YARDS		--	--	700	--
SUBGRADE WIDTH	S	--	--	13.5	--
BRUSHCUT (Y/N)		N	Y	Y	Y
BLADE, SHAPE, & DITCH (Y/N)		Y	Y	Y	Y

TYPICAL SECTION



TURNOUT DETAIL (PLAN VIEW)



SYMBOL NOTES

❖ Specified Rock Depth is FINISHED COMPACTED DEPTH in inches.

➢ Specified Rock Quantity is LOOSE MEASURE (Truck Cubic Yards) needed to accomplish specified FINISHED COMPACTED DEPTH. Rock quantities include volume for turnouts, curve widening and landings.

* CONSTRUCTION IS ON AN ABANDONED GRADE
A 3-INCH MINUS BALLAST ROCK
B SHOT ROCK FROM SILVER STAR PIT
C 2-INCH MINUS CRUSHED ROCK FROM MCCOY PIT STOCKPILE

TOTAL 3-INCH MINUS BALLAST ROCK = 3125 CY
TOTAL SHOT ROCK = 1970 CY
TOTAL 2-INCH MINUS CRUSHED ROCK = 2325 CY
TOTAL RIPRAP = 55 CY

ROAD #		MF-55	MF-55*	MF-55	JJ-ML	JJ-ML	JJ-ML	JJ-ML	JJ-25*
REQUIRED / OPTIONAL		REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
CONSTRUCT / RECONSTRUCT		PRE-HAUL	CONSTRUCT	CONSTRUCT	PRE-HAUL	PRE-HAUL	PRE-HAUL	PRE-HAUL	CONSTRUCT
TOLERANCE CLASS (A/B/C)		A	A	C	A	A	A	A	A
STATION / MP TO		95+55	104+40	112+00	0+00	22+25	28+55	31+55	0+00
STATION / MP		104+40	112+00	114+05	22+25	28+55	31+55	127+85	12+40
ROAD WIDTH	R	12	12	12	12	12	12	12	12
CROWN (INCHES @ C/L)		3	3	3	3	3	3	3	3
3DITCH WIDTH	W	3	3	3	3	3	3	3	3
DITCH DEPTH	D	1	1	1	1	1	1	1	1
TURNOUT LENGTH	L	50	50	50	50	50	50	50	50
TURNOUT WIDTH	T	10	10	10	10	10	10	10	10
TURNOUT TAPER	P	25	25	25	25	25	25	25	25
GRUBBING	G1	--	5	5	--	--	--	--	5
	G2	--	5	5	--	--	--	--	5
CLEARING	C1	--	10	10	--	--	--	--	10
	C2	--	10	10	--	--	--	--	10
ROCK FILLSLOPE	K:1	1½	1½	1½	--	1½	1½	1½	1½
❖ BALLAST DEPTH	B1	6	9	18	--	--	12	--	6
CUBIC YARDS / STATION		34	53	114	--	--	77	--	34
➢ TOTAL CY BALLAST		300 A	405 A	235 A	--	--	230 A	--	420 A
❖ SURFACING DEPTH	B2	--	--	--	--	4	4	4	--
CUBIC YARDS / STATION		--	--	--	--	22	22	22	--
➢ TOTAL CY SURFACING		--	--	--	--	140 C	65 C	2120 C	--
➢ TOTAL CUBIC YARDS		300	405	235	--	140	295	2120	420
SUBGRADE WIDTH	S	13.5	14.25	16.5	--	13.0	16.0	13.0	13.5
BRUSHCUT (Y/N)		Y	--	--	Y	Y	Y	Y	--
BLADE, SHAPE, & DITCH (Y/N)		Y	--	--	Y	Y	Y	y	--

ROAD #		JJ-25	JJ-25						
REQUIRED / OPTIONAL		REQUIRED	OPTIONAL						
CONSTRUCT / RECONSTRUCT		CONSTRUCT	CONSTRUCT						
TOLERANCE CLASS (A/B/C)		A	A						
STATION / MP TO		12+40	33+40						
STATION / MP		33+40	37+00						
ROAD WIDTH	R	12	12						
CROWN (INCHES @ C/L)		3	3						
DITCH WIDTH	W	3	2						
DITCH DEPTH	D	1	1						
TURNOUT LENGTH	L	50	25						
TURNOUT WIDTH	T	10	10						
TURNOUT TAPER	P	25	25						
GRUBBING	G1	5	5						
	G2	5	5						
CLEARING	C1	10	10						
	C2	10	10						
ROCK FILLSLOPE	K:1	1½	1½						
❖ BALLAST DEPTH	B1	12	12						
CUBIC YARDS / STATION		80	80						
➢ TOTAL CY BALLAST		1680 B	290 B						
❖ SURFACING DEPTH	B2	6	6						
CUBIC YARDS / STATION		34	34						
➢ TOTAL CY SURFACING		715 A	120 A						
➢ TOTAL CUBIC YARDS		2395	2395						
SUBGRADE WIDTH	S	16.5	16.5						
BRUSHCUT (Y/N)		--	--						
BLADE, SHAPE, & DITCH (Y/N)		--	--						

MATERIALS LIST

LOCATION		CULVERT			DWNSPT		RIPRAP			FILL TYPE	TOLERANCE	REMARKS
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET	TYPE			Note: Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter: Diameter / Gage / Corrugation 18" / 16 / 2 2/3" x 1/2" 24" – 48" / 14 / 2 2/3" x 1/2" 54" – 96" / 14 / 3" x 1"
MF-55	105+10	18	40	XX			2	3	L	NT	A	
MF-55	106+70	18	36	XX			2	3	L	NT	A	
MF-55	109+85	18	30	XX			2	3	L	NT	A	
MF-55	112+00	18	40	XX			2	3	L	NT	A	
JJ-ML	76+25	18	40	XX			2	3	L	NT	A	
JJ-ML	83+15	18	30	XX			2	3	L	NT	A	
JJ-ML	92+45	18	36	XX			2	3	L	NT	A	
JJ-ML	103+85	18	36	XX			2	3	L	NT	A	
JJ-25	1+85	18	36	XX			2	3	L	NT	A	
JJ-25	7+35	18	36	XX			2	3	L	NT	A	
JJ-25	9+65	24	40	XX			3	5	H/L	NT	A	Type 5 Stream
JJ-25	10+65	24	30	XX			3	5	H/L	NT	A	Seep
JJ-25	12+00	24	40	XX			3	5	H/L	NT	A	Seep
JJ-25	13+93	18	30	XX			2	3	L	NT	A	
JJ-25	15+99	24	40	XX			5	10	H/L	NT	A	Type 4 Stream
JJ-25	16+97	18	36	XX			2	3	L	NT	A	
JJ-25	18+65	18	36	XX			2	3	L	NT	A	
JJ-25	19+57	24	36	XX			3	5	H/L	NT	A	Seep
JJ-25	21+17	18	36	XX			2	3	L	NT	A	

GM – Galvanized Metal PS – Polyethylene Pipe Single Wall PD – Polyethylene Pipe Dual Wall AM – Aluminized Metal C – Concrete XX – PD or GM
H – Heavy Loose Riprap L – Light Loose Riprap SR – Shot Rock NT – Native (Bank Run) QS – Quarry Spalls

MATERIALS LIST

LOCATION		CULVERT			DWNSPT		RIPRAP			FILL TYPE	TOLERANCE	REMARKS
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET	TYPE			Note: Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter: Diameter / Gage / Corrugation 18" / 16 / 2 2/3" x 1/2" 24" – 48" / 14 / 2 2/3" x 1/2" 54" – 96" / 14 / 3" x 1"
JJ-25	21+93	24	40	XX			3	5	H/L	NT	A	Type 5 Stream
JJ-25	23+23	18	36	XX			2	3	L	NT	A	
JJ-25	24+37	18	36	XX			2	3	L	NT	A	
JJ-25	25+82	18	36	XX			2	3	L	NT	A	
JJ-25	28+07	18	36	XX			2	3	L	NT	A	
JJ-25	30+67	18	30	XX			2	3	L	NT	A	
JJ-25	32+42	18	30	XX			2	3	L	NT	A	
JJ-25	35+65	18	30	XX			2	3	L	NT	A	

GM – Galvanized Metal PS – Polyethylene Pipe Single Wall PD – Polyethylene Pipe Dual Wall AM – Aluminized Metal C – Concrete XX – PD or GM
H – Heavy Loose Riprap L – Light Loose Riprap SR – Shot Rock NT – Native (Bank Run) QS – Quarry Spalls

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Cuts and Fills

- Maintain slope lines to a stable gradient compatible with the construction materials. Remove slides from ditches and the roadway. Repair fill-failures, in accordance with Clause 4-6 EMBANKMENT SLOPE RATIO, with selected material or material approved by the Contract Administrator. Remove overhanging material from the top of cut slopes.
- Waste material from slides or other sources shall be placed and compacted in stable locations identified in the road plan or approved by the Contract Administrator, so that sediment will not deliver to any streams or wetlands.
- Slide material and debris shall not be mixed into the road surface materials, unless approved by the Contract Administrator.

Surface

- Grade and shape the road surface, turnouts, and shoulders to the original shape on the TYPICAL SECTION SHEET. Inslope or outslope as directed to provide a smooth, rut-free traveled surface and maintain surface water runoff in an even, unconcentrated manner.
- Blading shall not undercut the backslope or cut into geotextile fabric on the road.
- If required by the Contract Administrator, water shall be applied as necessary to control dust and retain fine surface rock.
- Surface material shall not be bladed off the roadway. Replace surface material when lost or worn away, or as directed by the Contract Administrator.
- Remove shoulder berms, created by grading, to facilitate drainage, except as marked or directed by the Contract Administrator.
- For roads with geotextile fabric: spread surface aggregate to fill in soft spots and wheel ruts (barrel spread) to prevent damage to the geotextile fabric.

Drainage

- Prevent silt bearing road surface and ditch runoff from delivering sediment to any streams or wetlands.
- Maintain rolling dips and drivable waterbars as needed to keep them functioning as intended.
- Maintain headwalls to the road shoulder level with material that will resist erosion.
- Maintain energy dissipaters at culvert outlets with non-erodible material or rock.
- Keep ditches, culverts, and other drainage structures clear of obstructions and functioning as intended.
- Inspect and clean culverts at least monthly, with additional inspections during storms and periods of high runoff. This shall be done even during periods of inactivity.

Preventative Maintenance

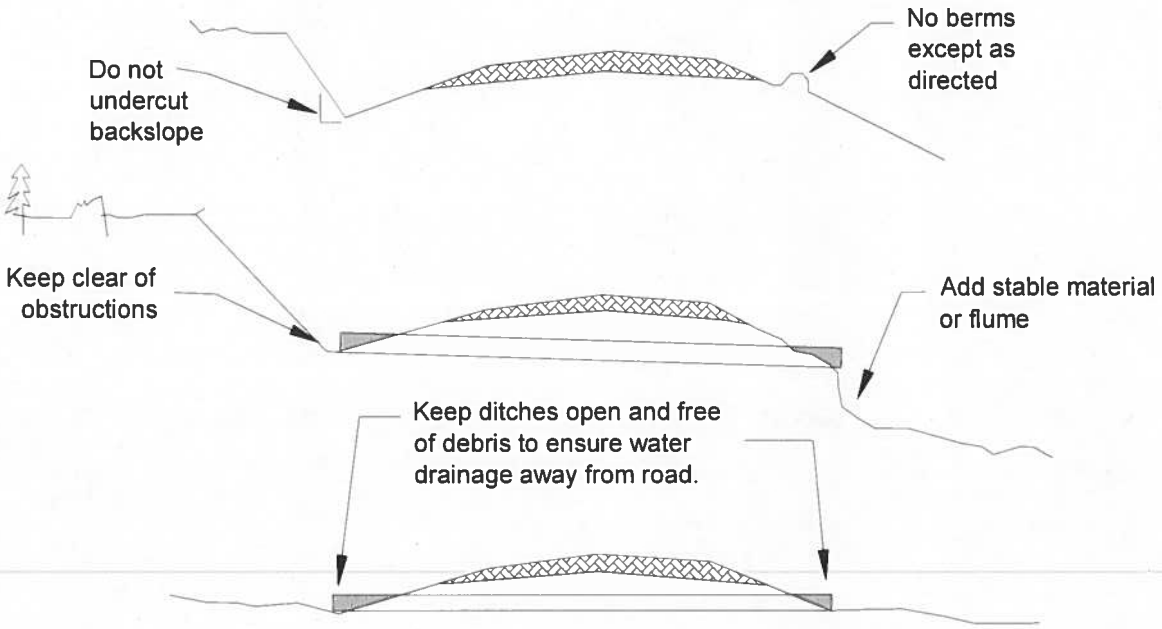
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

Termination of Use or End of Season

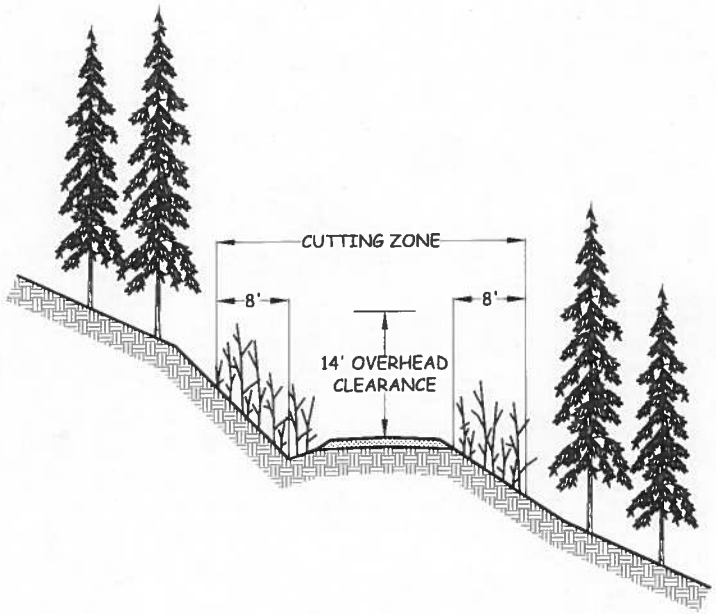
- At the conclusion of logging operations, ensure all conditions of these specifications have been met.

Debris

- Remove fallen timber, limbs, and stumps from the slopes, roadway, ditchlines, and culvert inlets.



ROAD BRUSHING DETAILS



SPECIFICATIONS

BRUSH SHALL BE CUT ON THE ROAD SURFACE AND 8 ft. BACK FROM ROAD DITCH AND OUTSIDE EDGE OF RUNNING SURFACE.

ON THE INSIDE OF SWITCHBACKS AND TIGHT CURVES, BRUSH SHALL BE CUT BACK 16 ft. FOR VISIBILITY.

ON TRUCK TURNOUTS, BRUSH SHALL BE CUT 8 ft. BACK FROM OUTSIDE EDGE.

BRUSH SHALL BE CUT TO PROVIDE AN OVERHEAD CLEARANCE OF 14 ft. ABOVE THE ROAD RUNNING SURFACE.

BRUSH SHALL BE CUT TO WITHIN 6 in. OF THE GROUND.

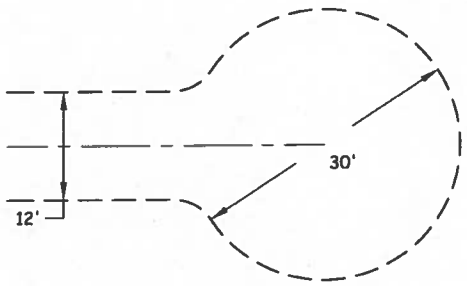
SLASH SHALL BE REMOVED FROM CUT SLOPES ABOVE THE ROAD AND SCATTERED ON EMBANKMENT SLOPES.

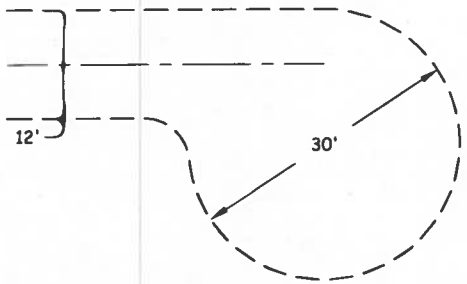
DITCHES SHALL BE CLEARED OF WOODY DEBRIS.

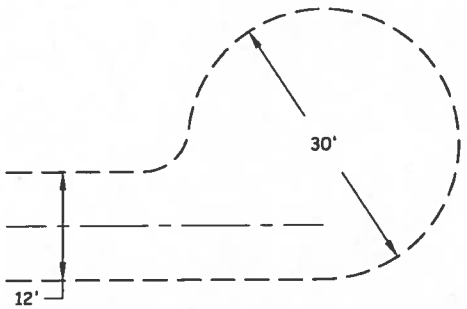
CULVERT INLETS AND OUTLETS SHALL BE CLEANED A MINIMUM DISTANCE OF TWO PIPE DIAMETERS AWAY.

CONTRACT #	PROJECT	SHEET
30-086386	BROKEDOWN PALACE	32 OF 35

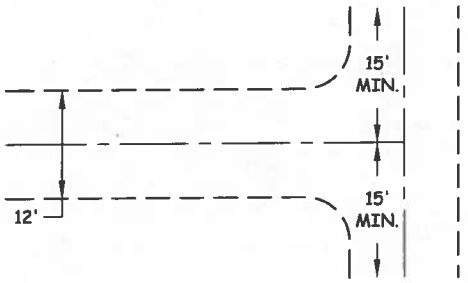
TURNAROUND DETAILS



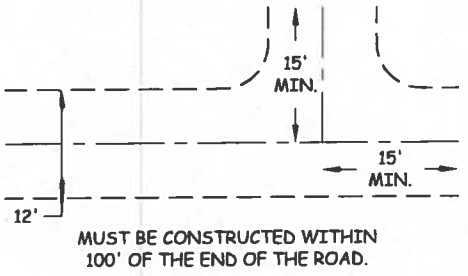




CUL-DE-SAC

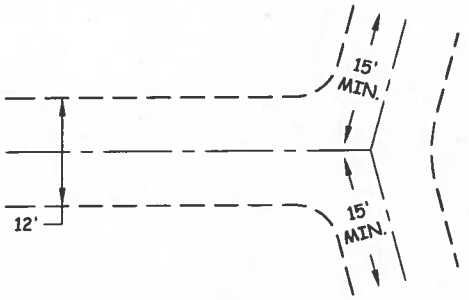


HAMMERHEAD



MUST BE CONSTRUCTED WITHIN
100' OF THE END OF THE ROAD.

3-POINT SIDE



3-POINT WYE

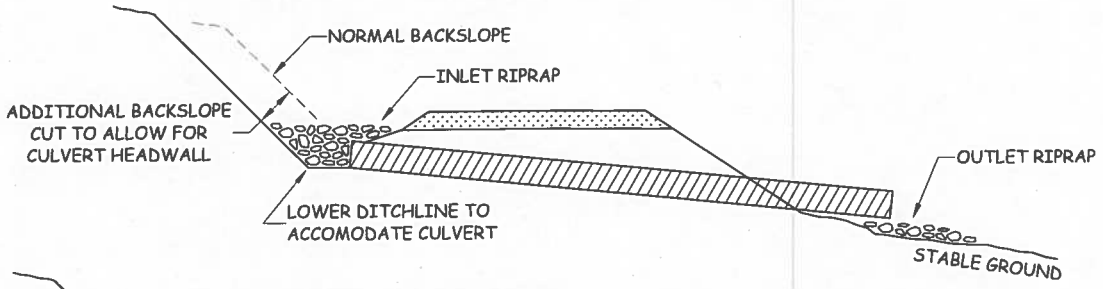
TURNAROUND TYPE AND TURNAROUND LOCATION ARE SUBJECT TO THE APPROVAL OF THE CONTRACT ADMINISTRATOR.

ROCK SHALL BE APPLIED THROUGHOUT THE TURNAROUND TO THE SAME DEPTH AND SPECIFICATIONS AS LISTED IN THE TYPICAL SECTION.

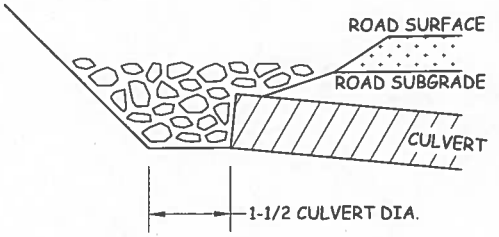
CONTRACT #	PROJECT	SHEET
30-086386	BROKEDOWN PALACE	33 OF 35

CULVERT AND DRAINAGE SPECIFICATIONS

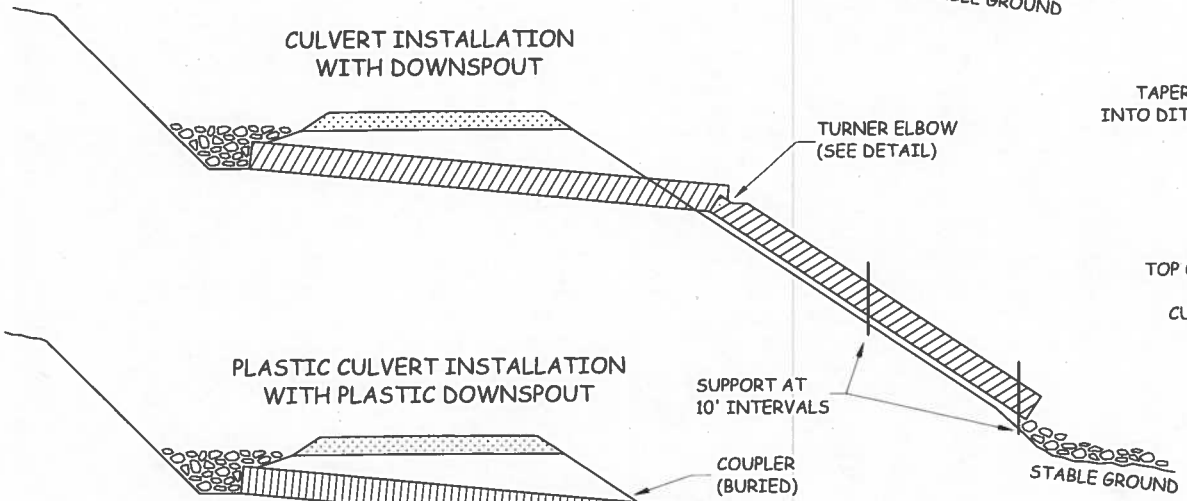
CULVERT INSTALLATION (TYPICAL)



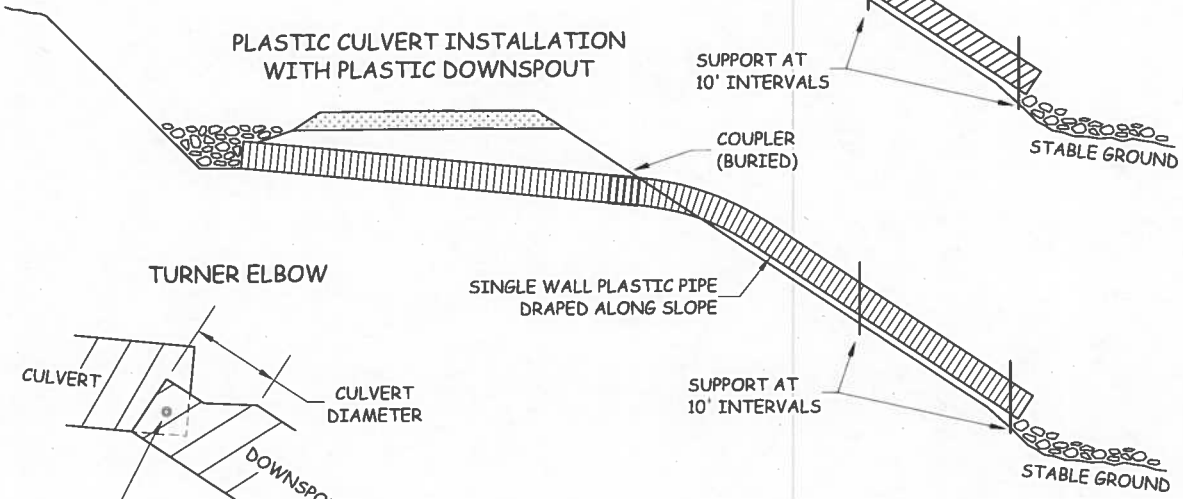
CULVERT HEADWALL - SECTION VIEW



CULVERT INSTALLATION WITH DOWNSPOUT

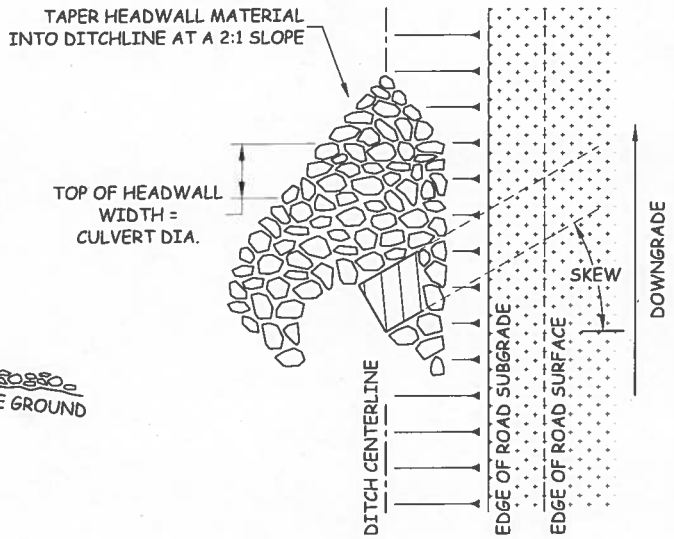


PLASTIC CULVERT INSTALLATION WITH PLASTIC DOWNSPOUT



TURNER ELBOW

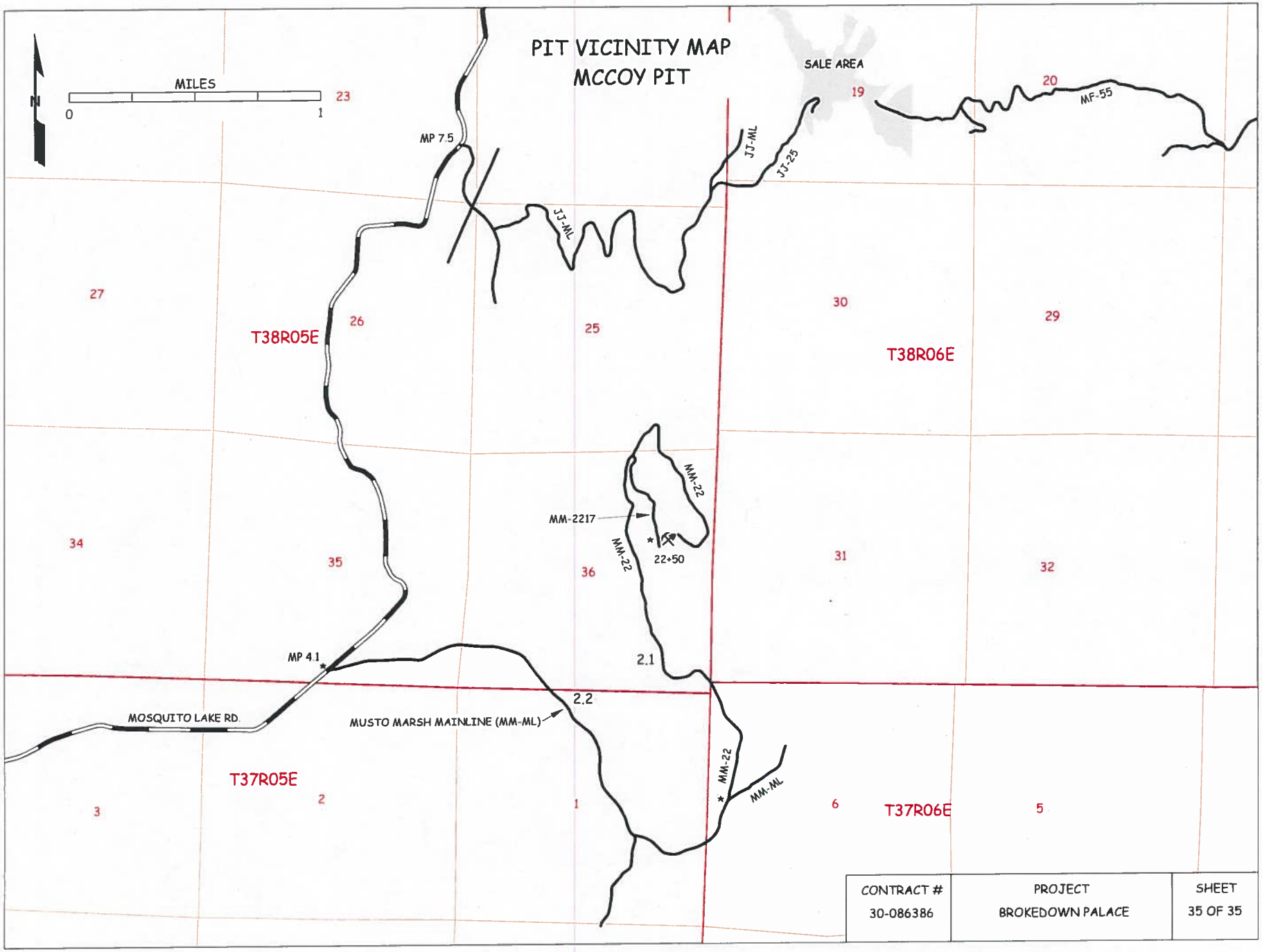
CULVERT HEADWALL - PLAN VIEW



HEADWALL NOTE:

HEADWALL TO BE CONSTRUCTED OF IMPERVIOUS MATERIAL THAT WILL RESIST EROSION AND ARMORED WITH RIPRAP QUANTITY SPECIFIED IN ROAD PLAN.

CONTRACT #	PROJECT	SHEET
30-086386	BROKEDOWN PALACE	34 OF 35



Forest Practices Application/Notification
Notice of Decision

FPA/N No: 2818896
Effective Date: 2/28/2023
Expiration Date: 2/28/2023
Shut Down Zone: 656, 658
EARR Tax Credit: ☐ Eligible ☒ Non-eligible
Reference: Brokedown Palace

Decision

☐ **Notification Accepted**	Operations shall not begin before the effective date.
☐ **Approved**	This Forest Practices Application is subject to the conditions listed below.
☐ **Disapproved**	This Forest Practices Application is disapproved for the reasons listed below.
☒ **Withdrawn**	Applicant has withdrawn the Forest Practices Application/Notification (FPA/N).
☐ **Closed**	All forest practices obligations are met.

FPA/N Classification

☐ Class II ☐ Class III ☐ Class IVG ☒ Class IVS

Number of Years Granted on Multi-Year Request

☐ 4 years ☐ 5 years

Conditions on Approval/Reasons for Disapproval

This application has been withdrawn due to snow. See attached memo dated February 24, 2023.

Issued By: Megan Pike **Region:** Northwest Region

Title: Resource Protection Forester **Date:** 2/28/2023

Copies to: ☒ Landowner, Timber Owner and Operator

Issued in person: ☒ LO ☒ TO ☒ OP **By:** [signature] **Date:** 2/28/2023

Appeal Information
You have thirty (30) days to ***file*** (i.e., ***actually deliver***) an appeal in writing of this Decision and any related State Environmental Policy Act (SEPA) determinations to the Pollution Control Hearings Board, the Attorney General's Office, and the Department of Natural Resources' region office. See RCW 76.09.205. The appeal period starts when the applicant receives this decision, which usually happens electronically on the date indicated below.

You must file your appeal at all three addresses below:

Pollution Control Hearings Board	Office of the Attorney General Natural Resources Division	Department Of Natural Resources Northwest Region
Physical Address 1111 Israel Road SW Suite 301 Tumwater, WA 98501 Mailing address Post Office Box 40903 Olympia, WA 98504-0903	Physical Address 1125 Washington Street, SE Olympia, WA 98504 Mailing Address Post Office Box 40100 Olympia, WA 98504-0100	Physical Address 919 North Township Street Sedro-Woolley, WA 98284 Mailing Address 919 North Township Street Sedro-Woolley, WA 98284

Information regarding the Pollution Control Hearings Board can be found at: https://eluho.wa.gov/content/11

Other Applicable Laws
Operating as described in this application/notification does not ensure compliance with the Endangered Species Act, or other federal, state, or local laws.

Transfer of Forest Practices Application/Notification (WAC 222-20-010)
Use the "Notice of Transfer of Approved Forest Practices Application/Notification" form. This form is available at region offices and on the Forest Practices website https://www.dnr.wa.gov/programs-and-services/forest-practices/review-applications-fpars/forest-practices-forms-and. Notify DNR of new Operators within 48 hours.

Continuing Forestland Obligations (RCW 76.09.060, RCW 76.09.070, RCW 76.09.390, and WAC 222-20-055)
Obligations include reforestation, road maintenance and abandonment plans, conversions of forestland to non- forestry use and/or harvest strategies on perennial non-fish habitat (Type Np) waters in Eastern Washington.

Before the sale or transfer of land or perpetual timber rights subject to continuing forest and obligations, the seller must notify the buyer of such an obligation on a form titled "Notice of Continuing Forest Land Obligation". The seller and buyer must both sign the "Notice of Continuing Forest Land Obligation" form and send it to the DNR Region Office for retention. This form is available at DNR region offices.

If the seller fails to notify the buyer about the continuing forestland obligation, the seller must pay the buyer's costs related to continuing forestland obligations, including all legal costs and reasonable attorneys' fees incurred by the buyer in enforcing the continuing forestland obligation against the seller.

Failure by the seller to send the required notice to DNR at the time of sale will be prima facie evidence in an action by the buyer against the seller for costs related to the continuing forestland obligation prior to sale.

DNR Declaration of Mailing

I Choose an item., caused the Notice of Decision for FPA/N No. To be placed in the United States mail at **Sedro-Woolley, WA**; postage paid. I declare under penalty of perjury of the laws of the State of Washington, that the foregoing is true and correct.

_____	Sedro-Woolley, WA	_____
(Date)	*(City & State where signed)*	*(Signature)*

Memo

To: Forest Practices

From: Cortney Coleman

Date: February 24, 2023

Subject **Withdrawal of Brokedown Palace FPA No. 2818896**

We would like to withdraw the Brokedown Palace FPA No. 2818896. We will resubmit at a later date.

Thank you,
Cortney Coleman